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HANDBOOK FOR COMRADES

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HANDBOOK FOR COMRADES

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Sweater Emblems

Upper designs—Pioneers

Center designs—Comrades

Buttons

Pioneer—Comrade—Leader

For value of colors, meaning of colored cords, numerals, and full explanation of insignia see second section of Appendix.

HANDBOOK FOR COMRADES

A Program of Christian Citizenship Training for Boys Fifteen to Seventeen Years of Age

ASSOCIATION PRESS
NEW YORK: 347 MADISON AVENUE
1920

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THE INTERNATIONAL COMMITTEE OF
YOUNG MEN'S CHRISTIAN ASSOCIATIONS

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FOREWORD

Special attention has been given to make this program as acceptable and as usable as possible by volunteer leaders of boys who desire a Christian citizenship training program, whether in the Young Men's Christian Association, the Sunday school, or elsewhere.

Every suggestion for the still further improvement of it will be welcomed and the largest possible cooperation and partnership are sought, both in the using of the present program and in any further revisions or substitutions that may be desirable from time to time.

It is hoped that a joint commission will be appointed to develop a program of boys' work which will be representative of the best ideals, standards, and methods of the forces which are directly responsible for the religious education of adolescent boys.

ACKNOWLEDGMENTS

This program represents the labors of many men and has taken several years of experiment and study as will be seen by reference to the Historical Statement.

We wish to express our grateful appreciation to the National Council of the Young Men's Christian Association of Canada for the use of text and illustrations from "Manual for Trail Rangers" and "Manual for Tuxis Boys," in addition to the chapters which carry acknowledgment in a footnote; to Ernest Thompson Seton for permission to use the chapter "Fifty Common Forest Trees of Eastern North America," as printed in the "Woodcraft Manual for Boys"; to B. Deane Brink for chapter on "Aquatics"; to George O. Draper for chapter on "Games"; to Dr. Peter Roberts and C. W. Bacon for chapter on "American Citizenship for Boys"; to H. W. Gibson for chapter on "Camping"; to R. G. Cole, Herbert L. Crate, Henry G. Hart, C. B. Loomis and Harry T. Baker for biographical

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THE INTERNATIONAL COMMITTEE OF
YOUNG MEN'S CHRISTIAN ASSOCIATIONS

Edgar M. Robinson,
Secretary, Boys' Work Division.

CHAPTER I

ALL ABOUT THE PROGRAM

Every live older boy, looking forward to manhood, wants to be a success; indeed, if he is any good, he *expects* to be a success. So that he is always keeping his eyes open for the things that help to make successful men.

This Program points the way toward success. Every boy who follows this plan may not be fully successful, but almost surely he will be more successful than if he had not followed a program of this character. Why? Because he will be laying broad, four-square foundations for his life. The Program offers a boy the opportunity to build his life up on all sides—to be strong mentally, physically, socially, and spiritually. Of course, the young man will later specialize, and become skilled in some one line. But he will be a better specialist if he has a broad foundation. His aim is to be able to say:

I can do all things well,
Some things better,
One thing best.

Then, again, the Program calls for just the things that an older boy is most interested in. The things that he does daily—at home, at school, at work—are all counted to his credit, and a whole world of most interesting facts and accomplishments is opened up to him. He is helped to become strong and skilled in his physical life, he finds the way to the most delightful discoveries in the mental world, he learns the joy of real service for others, and discovers the place of spiritual growth in a young man's life.

The Program, in these ways, brings the most useful information and challenges to the most worth-while accomplishment, and does all this in terms of the things which older boys like to do. Throughout the entire Program the idea is kept in mind of living as nearly as possible the complete life which Jesus lived as a young man, as we are told in Luke 2:52 that He "advanced in wisdom and stature and in favor with God and men."

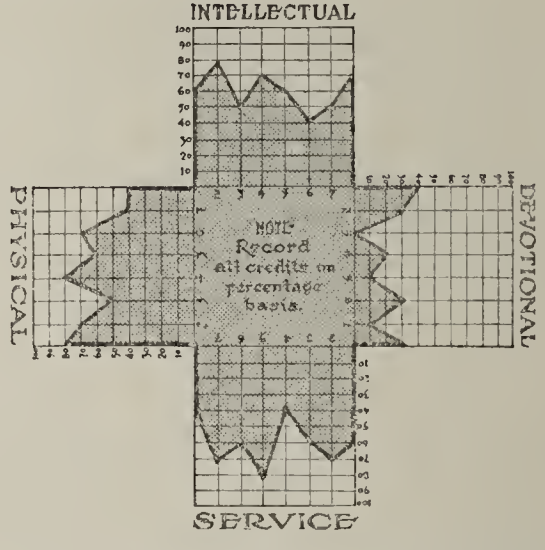
How does one get into the spirit and plan of the Program? While it is possible, of course, to get a great deal of enjoyment and help out of it by following it alone, most boys will join with others in a group under an adult *Leader*. The first thing to do, then, is to find the group you want to join and get acquainted with the *Leader*.

The *Leader* will very soon arrange for a charting interview. What is that? Well, it is simply a frank personal talk with the *Leader*, where he asks a few questions as to how far you have accomplished things, in this direction or in that, and then gives you an idea of how your accomplishments look when compared with a given "chart."

For instance, the cross with its four equal arms is taken as a symbol of a well-developed life. Each arm of the cross represents one phase of life—intellectual, physical, devotional, service.

Each arm contains eight lines; each line represents one test in that part of the boy's development. For instance, look at the physical side for a minute. There are eight lines, each representing a required test. On each of those lines a record is made of the boy's present standing. This is done in each of the four standards and the boy then sees his own chart.

Let us take an example of the way it works, as shown by a boy who has been charted.



This boy has been a fair student, has taken part in physical work, works well with others, and helps the other fellow, but he admits that he has neglected his spiritual life. He is one-sided.

That is the way the charting is done; but putting it on this chart isn't the principal thing. There is great value in the personal interview, where the boy learns a good many helpful things about himself and learns how to make good on things in which he may be lacking. The *Leader* also learns to know the boy better. But the real thing, after all, is the boy's realization that he has it in his power to secure a well-developed, all-round training for life.

But that is not all. The charting interview is just the beginning, to help the new boy to get acquainted with himself, with the *Leader*, and with the Program. After this come the group and inter-group programs of activities. If a boy does not chart quite the way he would like to, the Program will show him how he can broaden out his life; so that, when the second charting comes, at the end of the season, it will show him that he has gained a great many worth-while things.

The tests are of two kinds. Suppose we turn to page 10 and look at the tests under Education, which is a portion of the Intellectual Training Section. We see that out of 300 credits he may secure 200 by his general standing in school; the other 100 he can get by selecting some electives, and meeting tests as suggested there. This same arrangement holds good throughout the entire Program. In this way he can add to his knowledge and skill in the matter of useful and interesting things, and at the same time he will receive credits for what he learns to know and to do.

The button which a boy who is taking this Program is privileged to wear is shown on page 413. The emblems which mark his standing in the group are shown on the *color page* opposite title page. Each boy may wear one of these emblems; and a group emblem is also available for the entire group of boys, which shows how they stand when their individual records are bunched; of course, every creditable thing done by each member of the group will help to secure a better group emblem.

The group program, as it is used at a weekly meeting, consists of games, stunts, interesting talks, Bible study, and other features; besides all this, there will be hikes and visits to places of interest, and inter-group athletics, and all the good things that go along with a club of live fellows.

The Program has taken the life of Jesus, as a young man, as the ideal toward which every older boy may work. We are told that He "advanced in wisdom and stature, and in favor with God and men." This is the fourfold life which should be the aim of every older boy who takes part in this Program.

Of course, there is an opportunity for the boy who wants to do a little more than this Program requires in any special direction. Additional tests are found in the list of Service Recognitions (see page 85).

Beyond this Program for the COMRADES there is to be an additional Program for still older fellows; so that a boy entering in this group has a chance to go on developing in this Program until he reaches the age of twenty-one.

There are many useful and most interesting facts in the chapters to be found in the latter part of this book. By reading these chapters carefully, a boy will find many hints which will enable him to carry out his part of the Program successfully.

CHAPTER II

THE INTELLECTUAL TRAINING PROGRAM AND ACTIVITIES

"Jesus advanced in wisdom"—Luke 2:52.
"Thou shalt love the Lord, thy God . . . with all thy mind"—Luke 10:27.

Our minds are capable of marvelous development. Through them we learn to understand life and to appreciate people and events, and with them we must make great decisions. One of the greatest thinkers America has produced used to declare that the average man used only about one-tenth of his possible brain power, just as though a carpenter, having a full set of tools, should habitually use only three or four. Neither brains nor tools are much use unless they are set at work.

A boy's mind is also an important financial asset. You are worth about two dollars a day from your ears down. Your ability to earn and to enjoy life and to serve others depends pretty largely on the training and cultivation you give your mental powers.

A friend once asked me if I knew where the Great American Desert was. I assured him that I did—that it was in Arizona and New Mexico. He told me I was mistaken. Then, with a knowing smile, he pointed to his head with the remark: "It's up here. It's a wonderful piece of land, will grow anything under the sun from a big crop of bright ideas to 'tons' of profound thoughts, just provided it is properly cultivated."

It is certainly training that counts. Sixty per cent of our congressmen have been college men; seventy-nine per cent of our senators have been college men; ninety per cent of our supreme court judges have been college men; ninety-two per cent of our presidents have been college men.

The world needs, as never before, men with trained intellects "Ye shall know the truth and the truth shall make you free." Through training we come to know ourselves better, to appre-

ciate the real worth of our fellows more fully, and to perceive more of God's truth as we find it in events, in people, and in His wonderful out-of-doors.

The bulk of a COMRADE'S training, so far as your intellect goes, will probably be had in regular school and college unless you are an employed boy. If you find it impossible to stay in school because of economic reasons, you should take advantage of such opportunities as the night classes in high schools, the extension departments of state universities, and such courses as are offered by thoroughly good trade schools, business colleges, and correspondence schools. Do not suppose that, simply because you have been deprived of regular school work, your mind must forever remain undeveloped. "The world itself is a university. Travel and contact with men and things, a mental collision with different races and people, and the struggle to get on in the world are educators in the highest degree."

The main thing is to be certain that you are alive mentally. There is something to be learned from every friend and every book, from every ramble, from every event in the normal course of a day's activities. Lime has such an affinity for water that it will completely draw all the moisture out of a given amount of air. You must be so alive mentally and have such an affinity for knowledge that you will draw all that is valuable out of every day. Leaders everywhere are brainy men. The men, in most cases, who have made valuable permanent contributions to the world's good have been trained men who were mentally alive.

It should be a great encouragement to boys of this generation to know how science is coming to the rescue of the ordinary man and boy. Many wise-sounding books have been written to prove that certain so-called upper classes in society have more or less a monopoly on high talent and special ability, but it has been quite conclusively proved by the studies of Lester Ward, Alfred Odin, and others that there is in the world what is known as *universality of talent.* Exhaustive studies have proved that, where equal education is given, just as many geniuses of high talent can be produced from, say, ten thousand boys from the laboring masses or the small trades class as from homes of culture or wealth. That is, human nature has placed in each ten thousand boys a vast amount more of talent and ability than is

usually developed, and the number of men of high talent per hundred thousand can be greatly increased by proper inspiration and instruction. Corot, one of the greatest landscape artists the world has ever seen, was brought up in city streets, his father was a clerk in a drygoods store, his mother a worker in the millinery department of the same shop; he saw very little of the country until he was a boy in his teens. Parents and friends, however, when it was discovered that he had artistic sense and ability, lent definite encouragement to him; so, from a most surprising quarter, a family connected with the lesser important elements of trade, sprang one of the world's greatest artists.

These remarkable studies have shown another fallacy, the correction of which should bring great encouragement also to ambitious boys. The theory used to be that, if a boy possessed high talent or genius, the very power of his endowment would enable him to force his way up through all difficulties and arrive at the stage of accomplishment as Abraham Lincoln did. Odin's work, however, has proved the contrary; for, although high talent may appear in almost any stage of society, it is also shown that, except in rare cases, such talent needs encouragement and the best of training. There were sections of France in which for centuries not a man of genius had appeared, and it was supposed by the scholars that there existed something in the blood strain of that section of the country which prevented the development of men of high brain power. Odin went back over the records of five centuries and found that, just as soon as democratic education was brought to sections of this type, after a generation or two just as many men of rare ability came out of these localities as from those around Paris and the other favored educational regions. This theory of the *universality of talent* is well established and it will doubtless be one of the privileges as well as an accomplishment of this Program to locate such boys and to bring to all normal boys this encouragement about men's undeveloped resources.

Then, too, no fair student of the New Testament can fail to note the intellectuality of Jesus. He was broad-minded in every sense of the term. The range of His knowledge was great, the quality of it very rare. There was a certain remarkable uni-

versality about His grasp of truth and a penetrating keenness about His understanding that made it possible for Him to see clearly in the most perplexing situation and to judge rightly in face of the crucial test-questions set for Him by the shrewdest scribes and lawyers of His day. His replies in debate were like rapier thrusts. He so disarmed His antagonists that finally "they durst ask Him no more questions" seeking to entrap Him.

The Intellectual Training Program and Activities offered in the Program have as their purpose the stimulating of every COMRADE to larger mental growth. Every boy should be thoroughly alive to the value of health education, good books, practical talks, woodcraft, and nature study, for through these things we develop real mental power and understanding.

I. EDUCATION

Twenty dollars a week is better than ten, or fifty dollars better than twenty-five, especially if you are the man who gets it.

Do you know that a grammar school education increases a boy's or a man's earning capacity by fifty per cent; that a high school education adds one hundred per cent to his earning power, and a college education two hundred per cent?

Each school day well put in is worth more than sixteen dollars to a boy in the course of his life. Government statistics prove it. Here are the figures:

TEN DOLLARS A DAY

Average yearly income of high school educated man . .	$1,500
In 40 years he earns	60,000

A day laborer or uneducated man earns $2.00 a day.
365 days per year, minus Sunday, holidays, etc., 300 days.

Total yearly earnings	600
In 40 years he earns	24,000

$60,000 minus $24,000 equals $36,000—difference in earnings of educated and uneducated man—value of an education.

To get this requires 12 years of schooling, 9 months per year, 20 days per month or 2,160 days.
$22,000 divided by 2,160 days equals more than $16 —value of each day's schooling and training.

There comes to every boy the temptation to quit school and go to work. When such notions come, go slowly. Don't decide too soon. Ask a number of men who have been through the mill. Look over the above figures and then add to that evidence the fact that the very best values an education returns to a fellow are not in money at all, but in one's ability to mingle with cultured, educated folks, to read intelligently the really great books, to understand the best in art and music and, in short, to *live*. Ask the man without an education if he thinks *he* did the right thing by "following the line of least resistance." Talk with your best boy friends and see what they are going to do. The whole evidence will be completely in favor of your sticking to school.

James Terry White says that even a college course is not an education, but only the beginning of one. The college is primarily a discipline, a mental gymnasium, but, other things being equal, a college man as a business man will outmatch one who has not received that mental training. The ability to think clearly, largely, truly, and the power to will promptly, firmly, and with intelligence represent an enormous return from any sort of extensive education.

School and college are worth while. The boy who goes directly into business at the age of fourteen or fifteen is handicapped for life unless he continues his education while he works; there is no doubt about that. He has to rely very largely upon the schooling he then possesses to take him through his career. It is only in the last year or two of high school that your mind begins to judge the relative values of things and to balance the true with the false. Each of these years is worth more than double any previous year in the way of true mental development. The hours you spend in hammering away at home at some subject that seems so hard to get will be worth pure gold to you when you come to grapple with the monotonous problems sure to arise later in any business position worth occupying. Many a fellow of thirty is plugging away in a blind-alley job, poorly paid, with little responsibility, and therefore, little opportunity, who says: "If I had only stayed at school and finished my course, things would be different. I could have gone through for law and not be stuck here forever. I could at least have taken that position

up ahead but they gave it to my desk-mate because he had a better education and could handle it."

EDUCATION.....Total Credits—300

REQUIRED TEST—Maximum of Credits—200

1. Show that your school attendance is normal—100 credits.

2. Show that your effort is fair (20 credits), good (35 credits) excellent (50 credits).

3. Show that your scholarship is fair (20 credits), good (35 credits), excellent (50 credits).

By school attendance is meant either formal day or night school, continuation school, correspondence courses, private instruction, or regular apprenticeship training.

ELECTIVE TESTS—20 credits each up to 100

FIRST YEAR'S CHOICES

1. Participate in organized school or other athletics.
2. " " organized school or other literary society.
3. " " organized dramatics.
4. " " military organization.
5. " " oratory or declamation, school or elsewhere.
6. " " school welfare activity, High School Club, etc.
7. " " welfare activity in connection with Y. M. C. A., Settlement, Club, Grange, or through welfare, safety first, or similar movements at place of employment.
8. Attend an educational talk or discussion or read a book on:
   a. Why Go to College? or
   b. Why Should the Farm Boy Go to College? or
   c. How can the Employed Boy Secure the Equivalent of Higher Education?

SECOND YEAR'S CHOICES

1. Participate in organized school or other athletics.
2. " " organized school or other literary society.
3. " " organized dramatics.
4. " " military organization.
5. " " oratory or declamation, school or elsewhere
6. " " school welfare activity, High School Club, etc.

7. Participate in welfare activity in connection with Y. M. C. A., Settlement, Club, Grange, or through welfare, safety first, or similar movements at place of employment.

8. Attend an educational talk or a discussion or read a book on:

a. National Leaders and Education, or
b. How Country Boys through Education Become National Leaders, or
c. Be present at a discussion of the book, "Poor Boys Who Became Famous," by Bolton.

THIRD YEAR'S CHOICES

1. Participate in organized school or other athletics.
2. " " organized school or other literary society.
3. " " organized dramatics.
4. " " military organization.
5. " " oratory or declamation, school or elsewhere.
6. " " school welfare activity, High School Club, etc.
7. " " welfare activity in connection with Y. M. C. A., Settlement, Club, Grange, or through welfare, safety first, or similar movements at place of employment.
8. Attend an educational talk or a discussion, or read a book on:

a. What Is the Mind, a Storehouse for Facts or a Machine with Which to Think? or
b. What Sort of Education Is Needed for Scientific Farming? or
c. Varieties of Vocational Education (adapted to the the problems of youth).

II. SUPPLEMENTARY TRAINING

Every boy develops some special interest that he is unable satisfactorily to cultivate in his regular course or in his regular job. It may be music or sign painting or wireless telegraphy or salesmanship or public speaking. It may be gardening or poultry raising. It may be the raising of prize rabbits or interest in dramatics. But whatever it be, put it at once on a basis that will cause it to have a real educational value. Every older boy

should see to it that a part of his recreation is clearly purposeful, giving him some training in some specialized line. From four to five years of each normal life are passed in doing "not much of anything." Why not invest that time in supplementary training of a constructive sort?

SUPPLEMENTARY TRAINING.....Total Credits—100

REQUIRED TEXT—Maximum of Credits—75

Do the equivalent of twenty-five hours' study a year in some sort of supplemental education, such as music, art, mechanics drafting, shorthand or bookkeeping, salesmanship, business law, science, and public speaking.

ELECTIVE TESTS—25 credits (choose one)

1. Do each year at least one hundred hours of work on some job that has a distinctive educational, as well as a remunerative value to you.
2. Give evidence that your hobby interests or service training activities for each year have a definite supplemental educational value.

III. HEALTH EDUCATION

Henry Ward Beecher warns us that in our eagerness for mental development we should not forget to take proper care of our bodily health. "Never outrun health," he says. "A broken-down scholar is like a razor without a handle. The finest edge on the best steel is beholden to the services of the homely horn or pearl for ability to be useful. Keep an account with your brain. Sleep, food, air, exercise, and play are your best friends. Don't cheat them or cut their company." Many a man pays for his success with a slice of his constitution, but such things are usually due to ignorance.

The human body is the most wonderful, delicately adjusted machine in the world. It runs best when it is thought least about, *provided* it is run under normal conditions. If it is taken care of, properly fed, housed, exercised, washed, and rested, it will perform a marvelous amount of work.

If, on the other hand, these simple rules are persistently disregarded, trouble results. Some men drive an auto for months

with no appreciable wear and tear on the machine and with little or no repairs, while other men constantly have their machines in the shop for repairs. One observes the conditions under which the machine works best, the other entirely disregards these conditions. America is famous for having her business men "die with their boots on." Her winter resorts are full of broken-down business men at forty, all because these men did not know the rules of the human machine and drove ignorantly and recklessly. They exceeded the "speed limits" and paid no attention to "lubrication" or to their "radiators."

The tragedy of an ambitious soul in a broken body is well voiced by Horace Mann in the following words: "All through the life of the pure-minded but feeble-bodied man, his path is lined with memory's gravestones, which mark the spots where noble enterprises perished for lack of physical vigor to embody them in deeds."

If it is necessary to learn the rules of algebra and geometry and the laws of chemistry and physics, it is also necessary to learn the rules and laws of health. How can a boy be educated if he knows nothing at all about the most marvelous machine in the world? "Know thyself" certainly has a physical significance, as well as a spiritual and emotional one.

Then there is a deeper reason yet why you should know and practice health education. The future of the race will depend largely on the physical heritage that you will pass on to it through your children and children's children. Every intelligent boy should be tremendously concerned about keeping physically fit for the sake of the children of whom he is to be the father. Every child that comes into the world has the right to be well born. When a boy becomes a man and marries, he passes on to his children not only the inheritance of health and strength which he has acquired, but also his standards and mode of living.

If a COMRADE has had a real health education and is observing the fundamental laws of health, in all probability his children will establish similar habits and be as strong and healthy as their father. This privilege of being a partner with God in the creation of life should bring to all of us a realization of the sacredness of parenthood.

Consecration of the Affections

While a Comrade is not old enough to be thinking much about marriage, he should have the ambition to own some day a beautiful home and be surrounded by a loving family. The instinct that stimulates his imagination to picture such a delightful future is known as the sex instinct and it should be a great blessing in his life. Sometimes it is not. It all depends on how it is controlled. In a well-trained Comrade, the beauty and wonder of it all arouse a tenderness and a protective instinct toward all women and girls. We are inspired with a reverence for motherhood and we begin to appreciate the sacredness of fatherhood.

Harry H. Moore in his splendid book entitled, "Keeping in Condition," says: "The sex instinct may be compared with various natural phenomena. Fire, for instance, is a great blessing to mankind. It warms our houses and cooks our food. But if it gets beyond control, it may cause ruin. It is a fine thing to have temper; to be capable of becoming angry. It adds a certain desirable quality to the courage and will-power of man, but a man must control his temper or it may some day control him and under its control he may commit an act he may ever after regret."

For most boys to live clean, means hard fighting. The sex passion, so hot and fierce, calls forth the biggest fight of a lifetime, a fight in secret without applause, a fight requiring will-power and persistence. As a boy wins his fight, there is a new force that brings a richer and more abundant life with a greater capacity for love and physical strength, which will enable him to achieve great victories.

This instinct must be controlled and directed into helpful activities. The boy who throws himself with whole-hearted enthusiasm into team games, swimming, athletics, woodcraft, his school work, public speaking, arts, crafts, and hobbies, music, church and Sunday school work, gives this great force within him a chance to develop him into the highest type of manhood.

Sometimes this mighty instinct asserts itself so strongly that he is tempted to gratify it by association with immoral women and girls. The boy who thus gratifies nature debases the greatest gift that God has given him, the capacity to love, and thus he brings himself to the level of the beast. Sometimes a boy con-

fuses love and lust. Each is centered in this instinct. The trend of one is upward and God-ward and the other savors of the animal life.

COMRADES should regard all girls as future mothers of the race and bow in reverence before their self-sacrifice. Many a boy has been inspired to great achievements by a wholesome, winsome girl. A COMRADE will treat every girl as he expects other fellows to treat his own sister.

There is considerable information that every COMRADE should have regarding these great facts of life and one of the best methods to secure this information is to have your father or the *Leader* of your group read aloud to your whole group, "Keeping in Condition." Knowing the facts that are revealed in this book, a COMRADE who is true to his name will resolve that he will give his future wife as clean a life as he expects in her. Just as he believes in fair play and despises cheating in baseball or hockey, so, as a matter of fair play, he will adopt for his own life the same standards he demands in the girl he will some day marry.

"Happy the boy or man who, in his relationships with girlhood and womanhood, can play so fair and be so fine that every slightest contact which a girl has with his life fosters, stabilizes, and encourages that practical idealism on which she can build confidence, courage, and character."

HEALTH EDUCATION.....Total Credits—100

REQUIRED TEST—Maximum of Credits—50

1. Read such a book each year as "How to Live"—Fisher and Fiske—25.

2. Give evidence that you have had a confidential talk with your father or satisfactory substitute on what is involved in normal sex life—25.

ELECTIVE TESTS—25 credits each up to 50

FIRST YEAR'S CHOICES

1. Read one of the following pamphlets:

"Better than a Fortune," Eugene C. Foster.
"The Nurse and the Knight," Hervey S. McCowan.
"Friend or Enemy," Dr. Max Exner.

2. Attend a special lecture on Sex Life Development provided by your *Leader* or attend two group meetings when one of the following books is read and discussed:

"Rational Sex Life for Men," Dr. Max Exner.
"Reproduction and Sex Hygiene," Winfield S. Hall.

3. Write out a 250-word statement of the special health needs of the boys of your town as you know them.

4. Map out and submit a plan for public health for your town or city and defend the points you have included as fundamental.

5. Investigate and write 250 words on your town or city water supply, telling briefly what you think are the real health conditions involved.

6. Investigate and write 200 words on farm or factory sanitation or discuss the topic for the benefit of your group.

7. Describe general effect of tuberculosis, how it is commonly contracted and what steps may be taken to protect one from this "White Plague." (Written report may be accepted.) (If you are an employed boy and wish to, you may substitute any common trade disease.)

8. Attend a special lecture on Sex Life Development provided by the *Leader*, such as the Government "Physical Fitness" Exhibit, or attend two group meetings when one of the following books or its equivalent is read:

"From Youth into Manhood," Winfield S. Hall.
"Keeping in Condition," H. H. Moore.

9. Attend an educational talk or a discussion or read a book on the care of the teeth and diseases arising from carelessness.

SECOND YEAR'S CHOICES—25 credits each up to 50

1. Investigate and write 250 words on health precautions and safety first devices employed in any first-class, large business house or industrial plant.

2. Give evidence that you have seen the "Physical Fitness" charts of the United States Public Health Service, or

Attend a special lecture on Sex Life Development provided by your *Leader*, or attend two group meetings when the following book or its equivalent is read:

"Keeping in Condition," H. H. Moore.

3. Attend an educational talk or a discussion or read a book on the ears, eyes, and nose—their care and common affections.

THIRD YEAR'S CHOICES—25 credits each up to 50

1. Investigate and write 250 words on the meat-packing industry, dwelling on the United States inspection of meat.
2. Name eight common contagious diseases and suggest three rules for protecting the public from same.
3. Give evidence that you have seen the "Physical Fitness" charts of the United States Public Health Service.

IV. READING AND PUBLIC SPEAKING

Somebody has said that a good book is better than a good man because it is the best part of a good man! Perhaps that is an extreme statement, but anyway, a good book is splendidly worth while. And what of a book that isn't good? Why, it isn't worth reading at all, for there are thousands of fine, interesting, and helpful books that you are never going to get time to read, and every useless book you waste time on is forcing out a good one.

"Why are you reading that book?" asked one traveler of another.

"Why, why—why, I don't know, sir—just to kill time and to satisfy my curiosity," replied the reader, with a confused smile.

"I always *know* why I read every book I choose," replied the speaker, with a good-natured smile. "There are so many more first-class ones than I'll ever get even to look at, that it always seems a shame to me to 'kill time' with a worthless book. Reading a book is like eating an apple with me. I want one that is just right or none at all and you cannot depend on appearances."

Just as you are glad to make the acquaintance of men who have achieved in every realm of effort, but uninterested in knowing the mediocre men, choose your book acquaintances with the same fine discrimination. Own a few books that have a special message in them for you. Re-read what is best. Have a large number of good "bound acquaintances," a smaller group of "paper friends," but a select group of "book pals." The "pals" will be a very accurate indication of where you are going and what your ideals are.

Make your reading cover the whole field. American boys need to read much more biography. "Dry stuff," you say. That's because you don't know. I was asking a friend the other day if he had ever eaten a certain Mexican dish. He puckered up his face and replied. "No, I don't like it. What is it?"

One good biography is worth a half-dozen books of fiction. You can know personally many of the great lives of the world through reading their biographies. Then be sure to have a taste of the best history and a few books on travel, and some choice volumes of poetry, and don't forget the science books. Read about God's great workshop and of the marvelous things He has made therein.

Use the spare moments, on the street car, at the station, while you are waiting for other folk, to read. Keep a list of what you read. I know a very keen older boy who keeps two lists—one, books that he is *going* to read; the other, ones that he *has* read. I am amazed at the things he finds time to read. He is getting ready to "be somebody." Also read one or two good magazines with as much regularity as possible, and add to that a first-class daily paper.

What one has to talk about will largely be the result of what he reads. "We grow by what we feed upon." It's pretty hard to talk sense when one reads only nonsense. Every intelligent boy should be much concerned about his ability to express himself. Of course, it is not necessary for every older boy to become a "spell-binder," but it is necessary for him to have the ability to express himself clearly, concisely, and forcibly. A teacher of public speaking once asked a boy what the three laws of public speaking were. The boy, who had experienced a great deal of difficulty in saying well what he thought, promptly replied: "First law, practice; second law, practice; third law, practice." He had mastered the subject. There is not a single profession or line of work in which public speaking is not an essential to success. Never let an opportunity go by to get on your feet and express your opinion—provided you have one to express. It is as undesirable to talk too much as too little. However, the world invariably listens to anyone who has something to say and knows how to say it.

READING AND PUBLIC SPEAKING..Total Credits—100

REQUIRED TEST—Maximum of Credits—50

1. Make a six-minute speech each year in public on an assigned topic.

2. Read each year one book of

a. Fiction
b. Biography
c. History
d. Character development
e. Science
f. Poetry
g. Drama

(Selection to be made from lists offered in this manual, Chapter XVII)

ELECTIVE TESTS—10 credits each up to 50

FIRST YEAR'S CHOICES

1. Recite 100 words of standard poetry.
2. Engage in formal school or class debate.
3. Enter oratorical or declamation contest.
4. Read one newspaper and one magazine with reasonable regularity for a period of six months.
5. List and describe three or more books or magazines that deal with the actual work in which you are employed, or the special study in which you are engaged.
6. Prepare a list of five papers or magazines which every farm home should have and tell why.
7. Attend an educational talk or a discussion, or read a book on: How to Speak Effectively without Notes.

SECOND YEAR'S CHOICES—10 credits each up to 50

1. Recite 100 words of standard poetry.
2. Engage in formal debate.
3. Enter oratorical or declamation contest.
4. Preside at group meeting conducted under strict parliamentary order.
5. Read one newspaper and one magazine with reasonable regularity for a period of six months.
6. Secure from your State Agricultural College their bulletins on any agricultural subject in which you may be inter-

ested and read at least fifty pages of such material, reporting same to your *Leader*.

7. Read the pamphlet, "How to Hold a Job," Piner, Association Press, 10 cents—or its equivalent.

8. Attend an educational talk or a discussion, or read a book on: What Books Shall I Read?

THIRD YEAR'S CHOICES—10 credits each up to 50.

1. Represent your school, group, or club in formal debate.

2. Win a place in a declamation or in an oratorical contest.

3. Make a twenty-minute address in public on any subject, without a written manuscript.

4. Preside or act as toastmaster at some public gathering, such as a banquet, athletic meeting, or conference.

5. Read one newspaper and one magazine with reasonable regularity for a period of six months.

6. Read one of the following books, or its equivalent of the same type, and review briefly to the group:

"A Fight for Character," H. C. King.
"Rational Living," H. C. King.
"The Efficient Life," L. Gulick.
"Success," O. S. Marden.
"Making Good," John T. Faris.
"Increasing Human Efficiency," Scott.
"Temptation and How to Meet It," Sherwood Eddy.
"The Quest of the Best," W. D. Hyde.

7. Secure from your State Agricultural College all their bulletins on any agricultural subjects in which you may be interested, such as corn-growing, cattle-raising, horticulture, and fertilizing. Read at least 100 pages of such matter, and report to your *Leader*.

8. Secure books or bulletins from Government Bureau, a technical school or Department of State University, or directly from employer, dealing with the larger phases of the business or industry in which you are engaged. Read and make notes on at least 100 pages and report to your *Leader*.

9. Attend an educational talk or discussion, or read a book on: Characteristics of the Best Public Speakers.

V. CURRENT HISTORY, TRIPS, AND LECTURES

We are living in the greatest decade of history—world events are happening every day. Empires are being reshaped; century-old boundaries are being re-located; the national life of races and nations is being adjusted to new conditions. The nineteenth century made the world a neighborhood; the twentieth century is making it a brotherhood. We are living in an age of marvelous machinery; the mysteries of science are being understood. Natural laws are being harnessed for the good of mankind. Democracy and Christianity are winning world victories. Current history was never so interesting or important. The World War has made every boy in America a world-citizen. To fill that place of special privilege, every American boy, as never before, must be alive to the tremendous forces about him. Hastily reading the head lines of a daily is not enough. If you are to take your place in the big, busy world, you must be well informed not only on athletic heroes and movie stars but on world happenings. A fine high school leader said to me the other day: "I hate to go to bed for fear some tremendous thing will happen in the world and I'll be asleep." That is the proper attitude.

See all you can and hear all you can as well as read all you can. First, know your own community, its advantages and disadvantages. Know your local products, visit your public buildings, shops, and factories. Find out how the other half lives. Take time to hear as many of the visiting speakers as possible. Thousands of the country's livest business men give their lunch hour, twice to three times a week, to listening to someone tell of accomplishment in literature, science, or art, or in listening to a discussion on some problem of human welfare or on some new invention or proposed plan for making the world a better place in which to live. If they can find time for such things, so can you. Many a boy says: "Oh, what's the use? It's too much trouble." That is a great mistake.

Deliberately plan for yourself little trips. It matters not how you go—afoot, by steam, electricity, gasoline, or water—but go. Travel has always been an eye-opener. The world is a wonderful and beautiful place. God meant you to see it and enjoy it in

reason. What you see and hear gives you material to think about and talk about. Remember you are no longer a provincial individual who has no opportunity to know of the whole big world. The entire universe is at your door. Show me the boy who has time to kill, these wonderful days, and I will show you a boy who is blind, deaf, and dumb to opportunity itself. The day isn't long enough to go or do or see even a small part of what you may with little or no financial outlay.

CURRENT HISTORY, TRIPS, AND LECTURES

Total Credits—100

REQUIRED TEST—Maximum of Credits—50

Give satisfactory evidence to your group that you are well informed on current events of note in the past sixty days.

ELECTIVE TESTS—10 credits each up to 50

FIRST YEAR'S CHOICES

1. Present written or oral current event report at group meetings for a month.
2. Make a trip to some factory, dairy, stock-farm, laboratory, public building, or art museum, not previously reported, and write or report verbally in 200 words on your impressions.
3. Travel at least 200 miles in the preceding twelve months outside your home community.
4. Drive auto or motor cycle about 100 miles and make all necessary tire changes and repairs. Estimate cost of mileage.
5. Briefly outline a book recently read on any practical theme, such as farming, dairying, cattle-raising, engineering, wireless, and aviation.
6. Attend a practical talk, not previously counted, given by some one competent to talk on exploration, invention, travel, science, military life, etc., and write brief outline covering main points of the address.

SECOND YEAR'S CHOICES—10 credits each up to 50

1. Present written or oral current event report at one of your regular group meetings for a month, covering some special subject—industrial, educational, inventive, literary, artistic, etc.

2. Make a visit to some factory, dairy, stock-farm, public building, or art museum, not previously reported, and write or give verbal report in 200 words on your impressions.

3. Travel 200 miles alone on one trip.

4. Ride, drive, motor, cruise, or walk a distance of 100 miles, arranging all details of trip yourself, such as tickets, checking baggage, and planning for meals.

5. Briefly outline book recently read on any practical theme, such as economic farming, dairying, cattle-raising, engineering, wireless, or aviation.

6. Attend some large convention and take careful notes on principal speeches, reporting same to the group.

7. Attend a practical talk, not previously counted, given by some one competent to speak on exploration, invention, travel, science, or soldiering, and write brief outline of the main points in the address.

8. Attend a lecture by some labor leader or other student of social progress, dealing with the education or other advancement of working men and their families.

THIRD YEAR'S CHOICES—10 credits each up to 50

1. Read to the group the most striking editorial that you have seen in the month, and tell why you regard it as such.

2. Offer the best cartoon you have seen in a month, and tell why it is especially striking.

3. Make a visit to some factory, dairy, stock-farm, laboratory, public building, or art museum, not previously reported, and describe what you saw there.

4. Travel 200 miles alone.

5. Ride, drive, motor, cruise, or walk a distance of 100 miles, arranging all details of trip yourself, such as tickets, checking baggage, and planning for meals.

6. Attend some large convention or conference of significance, take careful notes, and report important items to the group.

7. Attend a practical talk, not previously counted, given by some one competent to speak on exploration, invention, travel, science, or soldiering, and write a brief outline of the address.

8. Secure a satisfactory speaker to make an address to a younger group of boys and you handle all details as to public announcement, securing attendance, and conduct of proceedings.

VI. ARTS, CRAFTS, AND HOBBIES

The desire to make something is instinctive. Watch a group of men or boys, even when they are not engaged at some work. Some will be making rude sketches, others will be whittling or carving a bit of wood. This desire to create is one of the things which has helped to elevate the race from barbarity to present day civilization. The savage made rude tools and implements which formed the basis for development into the splendid things of this kind we have today. It is a long way from the mud hut to the modern sky-scraper. The difference is a matter of degree in the development of that same desire to construct.

Cultivate a hobby; for example, architecture, etching, engraving, coins, photography, the microscope, the telescope, mineralogy, music, water colors—anything in which you take a natural and easy interest. Study the literature of the subject. Begin a collection of samples and specimens. Slowly add to it without extravagance. Ride the hobby so well that you can entertain and instruct friends an hour at a time, telling them of your experiments or collections.

The fact that this desire to make things is a natural one gives it a place in any program of complete development. It is a barometer to our capacities and tendencies. It is also a source of pleasure. Many a man today comes home from the office or shop and goes to the cellar or climbs the attic stairs and spends hours of real enjoyment producing some work for the mere joy of making it. Many a boy spends days, perhaps months, in constructing a wireless outfit, a telephone, a farm tool, a piece of machinery, an article of furniture, a piece of carving or burnt wood, or numberless other things. This should be fostered and developed. Great inventions have come in this way. It is one of the most natural sources of pleasure for boys of any age.

Every boy likes to make things of some kind or other, or is interested in some hobby. It may be different from the things other boys make or do, but it is something, the pursuit of which

brings him real pleasure. Not only does it give pleasure, but it also increases knowledge. One boy builds a rabbit hutch and in doing so learns elementary architecture. Another makes a battery and enters the threshold of science. Still another roams with a camera and enters into the world of pictorial art. The thing we want to emphasize is that every boy should develop these natural tendencies, for by doing so he will build into his life capacities for usefulness and enjoyment in harmony with natural gifts. Arts, crafts, and hobbies ought to result in many things of permanent value. Make every minute even of fun and recreation have more than a passing value.

ARTS, CRAFTS, AND HOBBIES.....Total Credits—100

REQUIRED TEST—Maximum of Credits—50

Give evidence that you have some well-defined hobby, such as photography, nature study and collection, arts and crafts, stock-raising and prize chickens, doves and rabbits, or that you are interested in wireless, stamp or coin collecting, etc., and talk ten minutes before your group on what you have learned from your art, craft, or hobby that is valuable.

ELECTIVE TESTS—25 credits each up to 50

FIRST YEAR'S CHOICES

1. Be enrolled in manual training class or arts and crafts class for one school term and make some article of wood work, leather work, basketry, pottery, bookbinding, wood-carving or art printing, lath work or forging, that represents six hours of work.
2. Assist in building one mile of fence.
3. Build one chicken coop, rabbit hutch, pigpen, or equivalent.
4. Give evidence of having successfully performed artistic or handicraft work in wood, sheet metal, tool making, and the like at place of employment, part time school, or in own shop.
5. Disassemble, or clean and reassemble repaired, some piece of machinery, same consuming six hours of time. This may be auto, bicycle, farm machinery, etc.
6. Attend an educational talk or a discussion, or read a book on: The Value of Hobbies.

SECOND YEAR'S CHOICES—25 credits each up to 50

1. Be enrolled in manual training class or arts and crafts class for one school term and make some article of wood work, leather work, basketry, pottery, bookbinding, wood-carving, lath work, forging, or art printing, that represents an original design and at least eight hours of work.

2. Build and hang three gates or doors, or build one set of steps, or put in sixty cubic feet of concrete or equivalent masonry.

3. Assist in building one garage or wagon shed or sanitary toilet, or screen in veranda, or build sleeping-porch or tent-house, or paint or varnish 500 square feet of board surface or equivalent.

4. Select a hobby connected either with your present work or some other line in which you are interested, and investigate and experiment on it fully. Electricity, newspaper work, engineering, or industrial design are practical opportunities in this line.

THIRD YEAR'S CHOICES—25 credits each up to 50

1. Be enrolled in manual training class or arts and crafts class for one school year and make some article of wood work, leather work, basketry, pottery, bookbinding, wood-carving, forging, lath work, or art printing that represents an original design and at least ten hours of work.

2. Take one full year of mechanical drawing under a competent teacher, either in night school, day school, or by private instructor.

3. Design and draw, listing bill of materials needed, a five-room frame house or its equivalent.

4. Assist in installing a complete water or lighting system in frame house or equivalent.

5. Paint one medium-sized house, barn, garage, or other building, consisting of at least 800 square feet of surface.

6. Make a working model of some mechanical device, ship, machine, silo, sagless gate, engine, or accessory, and describe process of securing U. S. patent.

7. Give evidence either at a school or shop that you can read and interpret blue prints.

VII. WOODCRAFT AND NATURE STUDY

Woodcraft was the earliest science. In fact, if prehistoric man had not become a wonderfully adept craftsman, it is doubtful if the human family would have survived. Woodcraft is the art of living in nature's garden with comfort and health, using such equipment as Mother Nature makes possible as the result of ingenuity and resourcefulness. As mankind has become more civilized and has flocked into man-made cities, he has lost much of his woodcraft. In fact, the average city boy knows nothing about it, save what he has read in enticing books of the out-of-doors. The most interesting place in all the world is the great out-of-doors, provided you will teach yourself to see and hear all the sights and sounds that are there. Have you ever been alone in a big city—great throngs of folks passing you in every direction—but all strangers to you? How desperately lonesome it all is! The very same thing happens with most folks when they go into the great out-of-doors. They are unacquainted and so feel very lonely. Woodcraft and Nature Study are to introduce you to at least some of the most interesting sights and sounds. You should surely know the common trees and the common flowers and birds. Even the insect world is filled with exciting scenes and episodes.

As a matter of fact, man's big job, in order to advance, has been to overcome and utilize nature. He has had to fight vermin and weeds, fell trees, and destroy insect pests. He has had to guard his little clearing from floods and forest fire and snow slides. He has had to domesticate animals and cultivate grains. He has had to make implements from nature's material and search for life-giving roots and nuts and fruit and, by so doing, he himself has become a keen, well-developed, intelligent man who can take care of himself.

God meant that man should live a great deal in the out-of-doors. He did not mean that we should live out our lives entirely in artificial cities or become so engrossed in man-made amusement that we could not find time to know Him better by getting acquainted with His handiwork. The Fountain of Perpetual Youth is in the out-of-doors. Have you ever tasted the exhilaration of a long tramp through woods or along a gushing

stream? Have you ever sat in the protecting shade of a great willow and let your line dangle purposelessly in the water, while you breathed the woodsy air or gazed up into a squirrel's neat nest or watched an eagle float in the blue above you, or perhaps let your mind run back to dwell upon the loving kindness of a Father God who could provide such a world for His children? If you haven't, you have missed one of the richest experiences of all life. Perhaps these suggested tests will lead you to do just that very thing—become an intelligent nature-lover. Enlarge your circle of friends by taking in a goodly number of nature's wild things. Check up on your nature knowledge today and see how short you are, then turn to your tests and make up for lost time.

WOODCRAFT AND NATURE STUDY . . . Total Credits—100

REQUIRED TEST—Maximum of Credits—50

Take one year of schooling in: Botany, Zoology, or Forestry, or read "Nature Study and Life," by Hodge, or its equivalent.

ELECTIVE TESTS—10 credits each up to 50

FIRST YEAR'S CHOICES

1. Attend educational talk or a discussion, or read a book on: The Economic Value of Our Birds.
2. Observe in their natural haunts twenty-five birds and write brief description or interesting facts about each of them.
3. Build and hang three kinds of bird boxes, and have at least one accepted for nesting place by birds.
4. Read one good book on birds for your section of the country, selection satisfactory to your *Leader*.
5. Write 300 words on:
   a. The Habits of the Woodpecker, or
   b. The English Sparrow, or
   c. The Hawk Family, or
   d. The Crow.

SECOND YEAR'S CHOICES—10 credits each up to 50

1. Attend educational talk or a discussion, or read a book on:
   a. Trees, their Growth, Protection, and Use, or
   b. Scientific Management of the Wood Lot.
2. Collect and press twenty-five weeds and tell how to exterminate them, or equal substitute.

3. Collect and name twenty flourishing shrubs, either native, cultivated, or both, or equal substitute.

4. Describe and name four poison plants and tell remedy for each of them, or equal substitute.

5. Cultivate six varieties of flowers; let each go to seed and describe carefully seed pod and method of dissemination.

6. Write 300 words on:
   a. Poison Ivy, or
   b. Poison Sumach, or
   c. Deadly Toadstools, or
   d. Larkspur, Monkshood, or Loco.

THIRD YEAR'S CHOICES—10 credits each up to 50

1. Attend educational talk or discussion, or read a book on:
   a. Our Insects—Friends and Foes, or
   b. Ten Farm Pests and How to Fight Them.

2. Collect twenty-five butterflies, moths, beetles, bugs, or flies and tell the life-history of five of them.
   a. Describe habits and life-history of three wild bees.
   b. Describe habits and life history of the mosquito.
   c. Describe habits and life-history of ants or house-fly.
   d. Describe habits and life history of grasshopper.

3. Collect and feed to the pupating stage, five caterpillars and preserve the chrysalises or cocoons until they emerge.

4. Search for moths, collecting at least three pair, naming them. (See Haward's Moth Book and other authority.)

5. Raise two hives of bees, or hive one wild swarm, or locate a bee tree in the woods by capturing wild bees and following them upon release.

6. Write 300 words on:
   a. The Cotton Weevil, or
   b. The Fruit Weevil, or
   c. The Mud-dauber Wasp, or
   d. The House-fly.

VIII. PERSONALITY ANALYSIS

It is very often worth while to take time out of our busy lives to check ourselves up. It is possible for us to be so busy doing things that we give little or no thought to the motives that

prompt us to do these things. Our attitudes in life are quite as important as our activities. One lies in the realm of the abstract, while the other has to do with the concrete.

The tests required in the Intellectual Training Program have no real value, after all, in themselves unless they result in a growing executive ability, in quickened and deepened thought processes, in better judgment, in more initiative, and a larger resourcefulness. Remember you are training for leadership, therefore all activities are but a means to an end. Leadership is clearly related to personality. Unless your personality is improving, unless you are rounding out into a fuller development, something is wrong. The Personality Analysis is divided into its intellectual, physical, spiritual, and service qualities, each being considered in its proper place, but united they make an intimate picture of you.

It will pay each COMRADE to give this part of his training considerable thought and study. *What You Are to Be You Are Now Becoming.* Are you daily becoming a more perfectly developed boy?

Following is a suggestive test. Check up on it each year at the time of your annual charting.

PERSONALITY ANALYSIS.....Total Credits—100

REQUIRED TEST—

1. Be awarded a maximum of 50 credits for right attitude toward securing for yourself a broad intellectual development.

2. Be awarded a maximum of 50 credits for the following intellectual personality analysis:

To what extent have you developed in:

a. Executive ability.
b. Power of concentrated attention.
c. Good judgment.
d. Initiative.
e. Resourcefulness.

Note. 10 credits each allowed for excellent development, 7 for good, and 3 for fair.

CHAPTER III

THE PHYSICAL TRAINING PROGRAM AND ACTIVITIES

"Jesus advanced in . . . stature"—Luke 2:52.

"Thou shalt love the Lord, thy God . . . with all thy strength"—Luke 10:27.

Young manhood is the time of greatest physical energy and health. The glory of young men is their strength. Physical health is a mental and moral asset. Muscle culture develops brain centers as nothing else will. Youth is the time to be hearty and rugged, free and open in manners, to be possessed with a desire to excel in all that one undertakes to do—to be happy and joyous and glad that one is alive in a world in which there is much work to be done. Physical action is the natural expression of health. It is a fine thing to be interested in all forms of exercise which will result in a ruddy cheek, a clear eye, a smooth complexion, and a strong masculine voice. All sorts of athletics and games have an undoubted and important place in furnishing healthful exercise and in providing a wholesome outlet for the full, free energy of youth.

Older boys who enjoy all kinds of outdoor life, who delight in competition which involves victory and fatigue, who take pleasure in all movements which call for rhythm and vigor, seldom are victims of habits of which they need feel ashamed.

Enough has been said to show that we have no right to despise the body. It has its rightful and important place as one of the four phases of our nature. If we set as our final goal the mental and moral gains which we may achieve through good health and well developed muscles we shall reap a double reward for our efforts.

Many older boys who desire to be clean and straight morally are failing to make good because they have neglected to reckon with their physical life as a vitally important factor in good morals. The Creator never intended that we should try to carry on our morals that which we should carry on strong, firm muscles. Good health is a great mainstay to our mental, moral, and

physical life and upon it we depend largely for our ability to serve our fellowmen.

"Jesus advanced in stature," is the only direct word we have about the physical development of the Master—but we cannot think of Him in terms other than of One with a splendid physique. We may infer from the type of hill country in which He spent His boyhood and from the trade He learned and mastered that He was more than ordinarily well developed physically.

Jesus lived constantly in the open air. He made long, tiresome journeys on foot. He was able to endure both physical and mental strain under which most men would have quickly broken down. Jesus's remarkable courage is best accounted for by the belief that He possessed an exceptional physique. A weak man may show a measure of courage under the stress of some special circumstances, but in order to face powerful enemies openly for a period of a year or eighteen months, as Jesus did, would require more than ordinary physical powers.

He also recognized the place of the body in His work and teaching. He cared for it, healed it, cured it of its diseases, relieved its sufferings, and provided for its needs, as in feeding the multitudes. In His teaching He gave it its proper place, recognizing its functions and needs in food and clothing.

"The life," He pointed out, "is more than the food, and the body than the raiment." The physical is important because of its spiritual relationships. The spiritual life is not limited to one part of the man, but is the whole of man, is all sides of his nature in relation to God. "Thou shalt love the Lord thy God with all thy strength," that is, with all thy physical powers. To be spiritual, therefore, on the physical side is to conform to God's laws for the body; the physical life has a spiritual significance; it, too, is God's.

The following Physical Training Program has been carefully put together. If followed, it will go a long way toward bringing about a sound, healthy, physical body such as the Christ built for Himself.

I. HEALTH HABITS

Habit plays a very large part in our ordinary daily routine. We automatically reduce many commonplace things to habit.

That is, we do them so often and with so little thought that they become habits before we know it. Most habits are easy to make and good habits are just as quickly formed as bad ones. When once formed, habits are very difficult to get rid of, whether they are good or bad. The sort of habits we allow to form pretty largely determine what sort of men we are to be. It is a fine thing to have all your habits fighting for you instead of against you. It is a great thing when your habits are constantly building you up instead of continually pulling you down. Now a habit is a continual source of action which by repetition becomes easy. As some one has so well said, "If we take care to form good habits the first twenty years of our lives, our habits will take good care of us the last twenty years of our lives."

It is of the greatest importance that every boy form positive health habits. His entire life, family, and career depend upon it. Most sickness is not necessary. It is the result of bad habits. There are more than a thousand useless deaths a day in the United States alone—due largely to careless living and the breaking constantly of natural physical laws.

Make it a habit of your life to get proper sleep and rest; make it a habit of your life to sleep alone, if possible, and always with a generous amount of fresh air. Fresh air never killed anyone.

Make it a habit of your life to drink quantities of pure water. It is God's cleansing liquid. Use it freely inside and out. Most of us use it far too sparingly. Make the cleaning of your teeth, twice daily, a habit. Form the habit of regular daily exercise. If you cannot enter strenuous play or cannot walk or run or have no place for your own calisthenics, do like the cat—stretch often and intensely in the fresh air.

Your bowels can be educated. They can and will, if given attention, form the habit of performing regularly almost to a definite hour. Constipation is the great American disease and is due largely to carelessness and procrastination. From it spring hundreds of evils that harass later life.

Posture is a matter of habit. Groom yourself well. Remove the "mourning" from under your finger-nails. Keep your hair cut, and your shoes shined, and avoid a dirty body.

Your thoughts have a very direct effect on your health. "As a man thinketh in his heart, so is he." "Whatsoever things are

true, whatsoever things are honest . . . whatsoever things are pure . . . whatsoever things are of good report . . . think on these things." For the habit of clean thoughts, clean speech, and clean sports. I received a letter of recommendation the other day concerning an applicant for a certain position which read as follows: "He is clean inside and out and his habits are right." He got the job.

HEALTH HABITS.....Total Credits—200

REQUIRED TEST—Maximum of Credits—160

Give evidence that eight of the following are habits of your daily life—20 credits each.

"Get the Habit"

1. **Fixed hour for rising and retiring.**
2. **Drinking one glass of water upon rising.**
3. **Cleansing teeth at least once a day.**
4. **Regular daily physical exercise.**
5. **Bathing thoroughly at least twice a week.**
6. **Daily bowel movement at regular hour.**
7. **Proper posture—standing and sitting.**
8. **Evidence of care in personal appearance; such as combing hair, cleaning nails, and washing thoroughly. Avoid dirty linen. Shine shoes.**
9. **Being temperate in sweets, sodas, and ice cream.**
10. **Abstaining from tobacco in any form.**

ELECTIVE TESTS—20 credits each up to 40

1. Attend each year an educational talk or discussion, or read a book covering the importance of clean living in building a successful life.
2. Sign the following agreement each year:

"I hereby purpose to throw my weight, whether it be an ounce or a ton, in favor of Clean Speech, Clean Living, and Clean Sports, and will help to promote such a campaign among my fellows."

II. CAMPCRAFT

A soldier, some time ago returned from overseas, was talking about his experiences, when he said: "I have always been very much interested in the way that the different boys took care of

themselves. When we'd move into new billets, or, sometimes, stop for the night with the twinkling lights of heaven above us, I noticed how easily some of the boys made themselves comfortable. Others never seemed to be able quickly to size up an old building or a bit of ground nor fix up a warm and comfortable bivouac. I have been thankful many and many times for the camping experiences that I enjoyed with the bunch of us who paddled day by day among the islands and camped by night among the rocks and pines of the lake."

To have a working knowledge of campcraft is an excellent attainment. Every red-blooded boy likes to "rough it." Yet if you know how to do it, you can be as comfortable as in the best hotel. Nothing will help to make you resourceful and as "hard as nails" like pitching and striking camp, with Nature close at hand as your assistant. It is a time when the boy who knows how to camp in comfort is a real asset to the group. It is a time when the spirit of "help the other fellow" has a great chance for expression, as the boys in your group spend the nights around the fire among the noises and silences of Mother Nature.

It surely is a great experience to have the sun-touched drip and flash of the paddle or the breeze-blown odors of the long trail in your memory as you stop in the evening at some grassy, tree-sheltered camp-site. It's great to see the fellows put up the tent among the trees while you rustle some balsam boughs and spread the blankets on them. My, but those beds will feel good! It's great to hear the crackle of the first small bits of wood taken hold of by the fire, with the smoke, a hazy slate color, drifting up through the trees as one of the bunch works his hatchet on the dry, splintery boughs; when the call to "eats" is heard, to dish for yourself a plate of beans steaming in the cool air, a few strips of crisp bacon, toasted brown by the open fire with that smoky tang that only camp-fire food can claim, and steaming coffee, with the other good things that the cook in the crowd prepares ready for a hungry group; to tell those jokes that the fellows know around the blazing camp fire at dark or hear the story of the early days that the *Leader* recounts; or, perhaps, just to sit quiet for a while watching the fire-figures in the center of a happy circle and hear nightly the voices of Nature that surround you. What experience can beat that of camping for a group of

real live boys—that is, when you understand camping in comfort—campcraft!

CAMPCRAFT.....Total Credits—100

REQUIRED TEST—Maximum Credits—50

Take at least one week-end hike into the country, staying all night, cooking acceptably on your own camp fire any three dishes you may choose, such as meat, potatoes, flapjacks, biscuit, cocoa, eggs, soup, game.

ELECTIVE TESTS

FIRST YEAR'S CHOICES—10 credits each up to 50

1. Sleep in open air, on sleeping-porch, under canvas, or in a shanty in the woods, twelve or more nights in a given year. Plan the food for a party of four or more and supervise the cooking of at least one meal a day for the twelve days.
2. Go on a two weeks' stay in any well-organized, private, Y. M. C. A., Boy Scout, Sunday school, or other sort of camp, enter into the activity of same, and accept responsibility for some specific piece of service to the camp.
3. Go on four week-end or other short camping trips, doing your share of cooking, camp sanitation, and care of boats and tents.
4. Take a two weeks' cruise under satisfactory auspices, doing your share of work and cooking.
5. Identify and collect ten wild fruits, berries, roots, or tender shoots that are good for food and give authority.
6. Identify and collect ten different kinds of leaves, roots, or bark that have medicinal properties and tell how to use each. Give authority.
7. Produce at least ten pounds of camp food—fish, fruit, nuts, or game—and prepare same for the table.
8. Attend educational talk or discussion, or read a book on Backwoods Surgery and Remedies.

SECOND YEAR'S CHOICES—10 credits each up to 50

1. Sleep in the open air, on sleeping-porch, under canvas, or in shanty in woods, fifteen or more nights in a given year. Plan

the food and personal effects for a party of six and supervise the cooking of at least one meal a day for eight days.

2. First investigate, then write out a 500-word statement describing an actual camping site near your home town for week-end working boys' camps, with statement of expense, including carfare, food, and incidentals for each boy, on basis of party of ten.

3. Go on a two weeks' stay in any well-organized Sunday school, Y. M. C. A., Boy Scout, or private camp and take responsibility for some phase of the camp program while there.

4. Take a two weeks' cruise or gypsy trip under above conditions.

5. Spend a period in a train ng camp for boys, sharing the whole program.

6. Know sixteen camp recipes, and how to prepare successfully each article of food for a party of eight to twelve.

7. Be able to plank a fish by the open fire.

8. Roast corn Indian style, in clay or wet leaves.

9. Build and operate an Indian fireless cooker, cooking fresh vegetables, fish, or fowl satisfactorily.

10. Bake in the ground satisfactorily one quart of beans.

11. Attend educational talk or demonstration on:

Tents and Tenting (how to pitch, ditch, furnish, and care for tentage).

THIRD YEAR'S CHOICES—5 credits each up to 50

1. Sleep in open air, on sleeping-porch, under canvas, or in a shanty in the woods, fifteen or more nights in a given year.

2. Plan the food and personal effects for a party of six, supervising the cooking of at least one meal a day for ten days or its equivalent.

3. Go on a two weeks' stay in any well-organized Sunday school, Y. M. C. A., Boy Scout, or private boys' camp and take responsibility for some phase of the camp program or its equivalent.

4. Take a two weeks' cruise or gypsy trip under above conditions.

5. Spend a period in a training camp, sharing the whole program.

6. Know sixteen camp cooking recipes and how successfully to prepare each article of food for a party of eight to twelve, or read Horace Kephart's "Camp Cookery."

7. Be able to plank a fish by the open fire.

8. Roast corn Indian style, in clay or wet leaves.

9. Build and operate an Indian fireless cooker, cooking fresh vegetables, fish, or fowl satisfactorily.

10. Bake in the ground satisfactorily one quart of beans.

11. Attend educational talk or discussion, or read a book on: Secrets of the Woods, covering such topics as:

How to Follow Trails.
How to Study Wild Things.
How to Anticipate the Weather.
How to Find Water.
How to Find your Way when Lost.
Signals.
Camp Etiquette.

12. Help a *Leader* in the conduct of four week-end camps for younger or employed boys, aiding in cooking, discipline, health, and safety of group.

III. TEAM GAMES

Many a man who has reached the heights of world fame has explained his success by saying that as a boy he learned to "play the game." The boy who has missed the training that comes from team games "hard fought and fair won" goes into life handicapped. Some one has well said that the football at Rugby and the regatta at Eton, bowling at Harrow and cricket at Westminster, succeeded by all those invigorating exercises in constant practice at Oxford and Cambridge, give to England the most elegant and able-bodied scholars in the world.

Every American boy should be encouraged to enter team games. It is here, perhaps as nowhere else, that he learns to think and decide quickly, to make muscles respond to will, to depend upon self in emergency. It is here that he learns self-control and unselfishness and, best of all, learns how to play the team game. No man can be a success in the large sense of the

word who does not master these fine points in living. The man who, out in the world in later life, plays the game clean and strong and to the finish was the boy that did the same thing back on the gym floor or the gridiron or the athletic field.

"There used to be a player on the second team of a certain college that was quick as lightning, a lover of the game, and a great ground gainer. But let it happen that this player got thrown hard at the start of the game or accidentally hit in any way, he would begin to fight. Week after week this player who might have proven a tower of strength to his college team was ruled out. He would not play the game."

Life is the greatest team game there is, and every game of baseball or football or hockey is but a practice game for the championship series, with actual achievement as a prize. The World War was won only after the Allies played a team game. In every normal home mother and father are playing a team game often against great odds for the sake of the children. Yes, get into the game. Play it for all you are worth not for your own sake but for the sake of the team.

TEAM GAMES.....Total Credits—100

REQUIRED TEST—Maximum of Credits—50

Show reasonable proficiency in at least four team games, such as, baseball, football, hockey, basket ball, volley ball, and soccer, participate during the year in at least twelve team games, showing self-control, gentlemanly conduct, and good spirit, and read two official rule books.

ELECTIVE TESTS

FIRST YEAR'S CHOICES—25 credits each up to 50

1. Officiate at two team games during the year.
2. Manage an athletic team satisfactorily through one season.
3. Write 300 words on Good Sportsmanship.

SECOND YEAR'S CHOICES—25 credits each up to 50

1. Officiate at three team games during the year.
2. Manage or captain an athletic team through one season.
3. Write 300 words on: Play Spirit among Boys.

THIRD YEAR'S CHOICES—25 credits each up to 50

1. Officiate at three team games of some sort during the year.
2. Manage or captain an athletic team through one season.
3. Write 300 words on: Some Great Athletes and Why They Were Great (see Boys' Handbook, Chapter VII).
4. Organize an athletic team among younger boys or boys in store or shop.

IV. GROUP GAMES

You cannot always have a gymnasium or an athletic field, but you can almost always find a vacant lot, an empty room, or a large hall. You do not always have team game equipment or an umpire, but you can always have a fine time, anyway, if someone in the crowd only knows a few good group games. Every boy should know them, for every boy can play them, and in a less concentrated way they can be made to teach all that team games do. They have a decided advantage over our team games for some occasions, for any number of boys can play and the necessary equipment can most times be quickly improvised. Besides having the effect of a fine physical tonic, they also have a real social value. For an evening of real fun and frolic with plenty of laugh and good cheer, group games are the thing. Many of them do demand skill and all demand good sportsmanship.

The boy who knows and can handle group and mass games is always the most helpfully popular boy in the group. There can be no dull hours with him about. He is in demand after lunch on the hike. He is in demand at the church school picnic. He is much sought after in the boys' camp. Everybody wants him and everybody likes him. He is indispensable. When you were a "kid" you played many group games. Perhaps you have forgotten them. If so, think them up and get ready for a stag party or an open house or twilight hour, because you will be sure to want them (see Chapter XXI, this manual).

GROUP AND MASS GAMES.....Total Credits—100

REQUIRED TEST—Maximum of Credits—50

Know and participate in at least ten group or mass games.

ELECTIVE TESTS

ALL THREE YEARS THE SAME—25 credits each up to 50

1. Acceptably conduct an evening of group and mass games for some other group than your own, teaching them at least five games.
2. Make a collection of thirty group and mass games, writing instructions for each in a notebook or on a card index.
3. Attend a special class of at least six sessions, when group and mass games are taught.
4. Teach one group game to the group that has been adapted from some other peoples, such as, Indian, Chinese, or Mexican.
5. Create interest in, and provide materials and leadership for, noon hour play at place of employment, or among grammar school boys.

V. AQUATICS

"Help, help," came the agonizing cry from the water. An eddy had caught the upturned boat and swept it far out of reach. Three boys stood on the bank with eager, strained eyes but unable to do a thing. Not one of them could swim. Two choice lives with untold possibilities yet unrealized were slipping away under their very noses.

"Believe me, I'm going to learn to swim at once," said Tom seriously.

"I'd give a thousand dollars if I only knew how now," said a second boy. The third was absolutely silent. He felt as if he had missed perhaps the greatest opportunity that would ever come to him to be of real service, simply because he was unprepared.

Just so there are hundreds and hundreds of drownings every year in river, lake, and pond all because there are so many boys who have not learned to swim. All through the outing season newspapers everywhere are full of the reports of preventable drownings. Human life is the most valuable thing in the world, and every reasonable precaution should be taken to save it. Swimming and life-saving instruction should be a part of every

boy's regular education, but as schoolhouses have not as yet, to any great extent, made provision for such instruction, every boy should make the very most of every opportunity offered to learn this splendid art. Furthermore, it is now generally conceded that swimming offers almost the ideal form of exercise. It is not too severe and at the same time it offers real development to every muscle of the body, resulting in splendid coordination.

If you have never read carefully one of the standard books on swimming, do it now—"At Home in the Water," by Corsan, and "Life Saving," by Goss. These can be found in any good public library or purchased through any first-class bookstore.

If you can already swim, train to become a better swimmer, and count it a part of your job as an American deliberately to teach as many other boys to become swimmers as possible. It is as fine a thing to prevent a drowning as to rescue a drowning person.

AQUATICS.....Total Credits—100

REQUIRED TEST—Maximum of Credits—60

Be able to dive into the water and swim at least fifteen yards.

Demonstrate at least three methods of rescue and release as given in Chapter X.

Demonstrate Schafer method of artificial respiration.

ELECTIVE TESTS

ALL THREE YEARS THE SAME—8 credits each up to 40

1. Swim on the back 15 yards.
2. Scull on back using hands only.
3. Tread water one minute.
4. Swim 40 yards.
5. Plunge for distance of 20 feet.
6. Dive from surface and bring up object from bottom in reasonable depth.
7. Teach one boy to swim 10 yards.
8. Tow a person of rescuer's own weight 20 feet.
9. Swim 100 yards using crawl, breast, back, and side over-arm strokes.

VI. ATHLETICS

Every normal boy is a real lover of athletics. Athletic contests are as old as the race itself. Organized athletics have come to have a real place in the life of every civilized nation. A great many of the finest lessons of life are learned on the athletic field and cinder-track. Every boy admires a clean-cut, well-developed body that is under the control of the will. Such bodies are the foundations of most great careers. Every school and college in the land deems it worth while to give time and effort to athletics. Fortunately we are fast getting away from the old idea of just developing an outstanding team of experts, and are leaning strongly to the slogan of "every student in some form of athletics."

The old ideal used to be to compete against certain established records in an effort to break them. In addition to this we now encourage each athlete to compete continually against himself, to break his own best record. This is a stimulator of "every man in the game," and makes it possible for the boy who is not necessarily a "winner" to have for himself all the benefits of athletics. If it is desirable for a select team to learn self-control, temperance, courage, perseverance, self-reliance, and all the other clean-cut manly virtues, then it is desirable for every boy. In this connection every athlete should constantly remember that all "machines" are not rated the same "horse power," and that the effort and persistence of a less capable fellow should be appreciated as much as the exceptional records of the "high-power experienced machine."

If competitions are organized on a group basis so that every member adds to the total score made by the group, backward boys will feel that the forty or fifty points they may make, while not much in themselves will in any event bring up the average. They will be led to participate and do their best, and incidentally to discover that they are able to make a very good showing in one or more events. Remember every boy is seeking all-round development and should enter the athletic events as a very real part of the whole.

Read carefully the events and group classifications for athletics as they are given in the pages immediately following, and then read carefully all of Chapter IX. Full scoring tables are given on pages 124-133 on Track and Field Athletics.

Basis of Grading for Athletic Events

The weight classification has been chosen because it is the most simple, conforms to existing efficiency tests, and is most practical for the *Leader*. The following is the weight classification:

Class I.	60 to 80 lbs. inclusive	80 lb. class.
Class II.	81 to 95 lbs. inclusive	95 lb. class.
Class III.	96 to 110 lbs. inclusive	110 lb. class.
Class IV.	111 to 125 lbs. inclusive	125 lb. class.
Class V	18 years and under Weight unlimited	unlimited class.

In rare instances there are boys who are handicapped by a straight weight classification, for instance, a boy twelve years old weighing 120 lbs. would be outclassed in the 125 lb. class. There are a few boys who are given an undue advantage. A boy seventeen years old weighing 100 lbs. would outclass any boy of fourteen or fifteen in the 110 lb. class. In competition with other groups, the straight weight classification should be followed, but in competition within the group the *Leader*, with the consent of the group, could make exceptions of these boys and grade them according to the following averages and classifications.

A summary of study of the average weight of 67,987 boys in the United States gives the following results for the varying ages:

12 years— 69.8 lbs.
13 years— 75.2 lbs.
14 years— 82.3 lbs.
15 years— 91.4 lbs.
16 years—111.9 lbs.

These averages, applied, result in the following age and weight classification which may be used:

Class I.	Boys 12 years, irrespective of weight.
	Boys 13 years, under 81 lbs.
Class II.	Boys 13 years, 81 lbs. and over.
	Boys 14 and 15 years, under 96 lbs.
Class III.	Boys 14 and 15 years, 96 lbs. and over.
	Boys 16 and 17 years, under 111 lbs.
Class IV.	Boys 16 and 17 years, 111 lbs. and over.
Class V.	Boys 18 years, irrespective of weight.

ATHLETICS.....Total Credits—200

Athletic Events Summary

Each event counts a maximum of 20 points
Total, 10 events, 200 points

Class I

60 to 80 lbs. inclusive
80 lb. Class

1. One Lap Potato Race
*2 Three Lap Potato Race
3. 50 Yard Dash
*4. 75 Yard Dash
5. Standing Broad Jump
*6. Pull Up—Four Times
*7. Running High Jump
8. Running Broad Jump
*9. One Day Hike—Eight Miles
*10. Century Hike—100 Miles in a Year
11. Baseball Throw

Class II

81 to 95 lbs. inclusive
95 lb. Class

1. One Lap Potato Race
*2. Four Lap Potato Race
3. 75 Yard Dash
*4. 100 Yard Dash
5. Standing Broad Jump
*6. Pull Up—Five Times
*7. Running High Jump
8. Running Broad Jump
*9. One Day Hike—Ten Miles
*10. Century Hike—100 Miles in a Year
11. Baseball Throw

The six starred events are required. Participants may pick four of the remaining five to make ten events.

Class III

96 to 110 lbs. inclusive
110 lb. Class

1. Two Lap Potato Race
*2. Five Lap Potato Race
3. 75 Yard Dash
*4. 100 Yard Dash
5. Standing Broad Jump
*6. Pull Up—Six Times
*7. Running High Jump
8. Running Broad Jump
*9. One Day Hike—Twelve Miles
*10. Century Hike—100 Miles in 6 Mos.
11. Baseball Throw for Distance
12. Shot Put

Class IV

111 to 125 lbs. inclusive
125 lb. Class

1. Two Lap Potato Race
*2. Six Lap Potato Race
3. 100 Yard Dash
*4. 220 Yard Dash
5. Standing Broad Jump
*6. Pull Up—Seven Times
*7. Running High Jump
8. Running Broad Jump
*9. One Day Hike—Fourteen Miles
*10. Century Hike—100 Miles in 6 Mos.
11. Baseball Throw for Distance
12. Shot Put

Class V

Weight unlimited
18 years and under
Unlimited Class

1. Three Lap Potato Race
*2. Six Lap Potato Race
3. 100 Yard Dash
*4. 220 Yard Dash
5. Standing Broad Jump
*6. Pull Up—Eight Times
*7. Running High Jump
8. Running Broad Jump
*9. One Day Hike—
Eighteen Miles
*10. Century Hike—
100 Miles in 6 Mos.
11. Baseball Throw for Distance
12. Shot Put

The six starred events are required. Participants may pick four of the remaining six to make ten events.

VII. PHYSICAL EXAMINATION

Prevention is better than cure. Most serious physical conditions *develop;* they do not happen all at once, just as an automobile does not go all to pieces in a single day. First, it's a squeak, then a rattle, and then a repair bill. "Squeaks" are much easier to fix than breakdowns and cost less in time, labor, and money. Every owner of a good car is constantly on the look-out for bad indications, which he promptly has taken care of. Two men in the same town with the same car and about the same mileage get very different results. One man wears a car out in a year. "Mine is better than ever." How do you explain it? One takes excellent care of his machine; every day the other procrastinates or thinks a few "squeaks" don't matter, and at the end of a year his car is fit only for the junk-pile.

I said to a friend not long ago, "Why, Jim, you have a new car." "No," he replied, "I've driven that car 18,000 miles."

"Impossible," I said, and then he explained.

"I have regular times when I go completely over it. I look at every bolt and screw. I test out my ignition and I drain and clean the crank-case and radiator. I never let any little difficulty go a day. If I can't fix it, I have an expert adjust it. It would break my heart to see anyone abuse my car. We're pals."

Now that is just the way to take care of your body, for certainly you and your body are pals. What one is and does very largely depends on the other. A physical examination by a trained expert, at regular intervals, of every human machine in America would certainly put a lot of doctors and dentists and drugstores out of business. The recent army drafts all over the world proved the real condition of hundreds of thousands of human machines and revealed flat feet, curvature of the spine, decayed teeth, bad tonsils, leaking heart valves, hernia, and other things that needed attention. Yes, prevention is better than cure. Find out if your machine is tuned up for its best work.

PHYSICAL EXAMINATION..... Total Credits—100

REQUIRED TEST

Have a thorough physical examination by a reputable doctor or physical director, approved by your Leader, using blank provided for same in the Appendix.

Credits are awarded as follows:

Fair physical condition 50 credits.
Good physical condition 75 credits.
A-1 physical condition 100 credits.

The employed boy should have special attention from the standpoint of his work and its good or bad effects on health.

Each boy should be reexamined each year, keeping careful records for contrast in improvement.

VIII. PERSONALITY ANALYSIS

Physical condition and development have a very great influence on personality and leadership. True, there are cases on record where sickly and even crippled men have risen to world fame by sheer force of character and will power. Notwithstanding all of this, the physically trim, well-groomed man whose

posture is erect and who radiates health, has already every advantage over the man who has not given such things his careful attention. All of the tests offered under the Physical Training Program have as their prime object the development of a strong, refreshing, contagious physical personality. Jesus certainly had just such a personality. Recall the incident of His cleansing the temple single-handed and alone. He drove them all out; His wonderful body probably bare to the shoulder; His clear eye and ruddy cheek aflame with righteous indignation; His breast heaving from the exertion of quickly removing the dove cages, all lent themselves to prove Him every inch a man, and finally a half-dozen of the bravest got their heads together and cried back at Him, "Who gave you authority to do this?" From the very instant He entered the synagogue, He was the absolute Master of the situation. It is a superb illustration of personality and leadership. Be ambitious that you, too, may have a fair portion of that development.

PERSONALITY ANALYSIS.....Total Credits—100

REQUIRED TEST

1. Be awarded a maximum of 50 credits for right attitude toward securing for yourself an adequate physical development.

2. Be awarded a maximum of 50 credits for the following physical personality analysis:

To what extent have you developed:

a. A proper sitting, standing posture.
b. Coordination and control of motions.
c. Strength.
d. Skill in directing the body.
e. Physical influence on others (inspiring or depressing).

Note: Grade—10 credits each allowed for excellent development, 7 for good development, 3 for fair development.

CHAPTER IV

THE DEVOTIONAL TRAINING PROGRAM AND ACTIVITIES

"Jesus advanced . . . in favor with God"—Luke 2:52.
"Thou shalt love the Lord, thy God, with all thy heart"—Luke 10:27.

"Life and religion are *one*, or neither is anything," or, as Disraeli the great English statesman declares, "Religion should be the rule of life, and not a casual incident of it." It should be explained that, because for convenience a certain set of activities in this Program is termed the Devotional Training Program, it is not meant to imply that the spiritual can be thought of as a water-tight compartment apart from all other elements of life. In the best sense, life itself is all spiritual. True religion is in all and through all and about all. A physical sin or a social sin is just as possible and just as bad as a spiritual sin. Obeying all of God's laws is necessary, whether they are physical laws or mental laws or social laws. Christ came that we might have life—all life—and have it more abundantly. Yet to most folks religion has to do primarily with the cultivation of our heart life, that is the emotional nature. Often we deprecate too much evidence of the feelings and often apologize for it as if it were a weakness. Yet you know that it is the affections, the sentiments, feelings, and desires that are the very mainsprings of life. Heart desires wrongly directed become passion, but when love and affection and reverence and gratitude are normally developed we have a strong, deep life, capable of wonderful friendships and great sacrifices and able mysteriously to stimulate others to be constantly at their best. There are, generally speaking, three outstanding types of leadership: (1) those who lead because of their intellectuality; (2) those who lead because of their will power; (3) those who lead because of their power of feeling.

Jesus was a wonderful combination of all three. As we have pointed out in previous chapters, he was mentally very keen;

the wisest "durst not ask Him" further questions. He was physically a perfect specimen, as evidenced by His whole life; for illustration, the cleansing of the temple. He was emotionally deep and wonderful, as proved by His great love, His sympathy and His capacity for the friendships of all sorts and conditions of men.

In His teaching, no less than in His life, did Jesus recognize the importance of the desires and feelings. His ideal of the emotional life is perhaps best expressed by the word "beauty" or "perfection." He appreciated the beautiful whether in nature or man. "Consider the lilies of the field," "Be ye therefore perfect as your father which is in heaven is perfect," expressed the joyous admiration and aspiration of His heart. He entered heartily into the temple worship and delighted in the ideals of beauty and perfection expressed in the Psalms of Praise, such as, "Worship the Lord in the beauty of holiness," "Out of Zion, the perfection of beauty."

The Church, too, in her teaching and practice has been true to this fundamental principle in life. By all the arts at her command, she has endeavored to cultivate the heart life of man, using in her simple, yet stately services of worship, Scripture, prayer, ritual responses, music, poetry, and art to deepen and strengthen man's religious and emotional nature. If it is important that we spiritualize the physical and intellectual sides of our life and relate them to God, how much more important that we also seek to spiritualize the heart life, too, and consecrate all its rich and abundant powers to Him as Jesus did. That man is spiritual on the emotional side of his nature, therefore, who has brought his feelings and desires under the control of Christ and is giving them full expression in His service. The feelings and desires have a spiritual significance; the heart, too, is God's.

Now is the time when wide-awake thoughtful boys begin to get a deeper insight into the inner meaning of all life—hence the appropriateness of an appeal for a spiritual interpretation of music, poetry, art, and nature during these years. We should be able to see and feel and recognize God in all that is beautiful, whether it be the song of a bird, a mountain sunset, or a human voice. God is everywhere and is easily recognized by those who

know Him. "My sheep hear my voice, and I know them, and they follow me."

Up to the time of Christ's coming God had *told* the people how to live, through His Prophets and His nature, but Christ came to *show* us how to live—to be the Pattern, to demonstrate what God wants every boy to be—an all-round, perfectly developed son of God. How natural then, that at this age, when we have come to understand Him and His message so well, that we should turn to Him as Hero and Guide—as our Personal Saviour from sin and shortcoming and as Lord and Master of our lives. This is the logical time for every thoughtful boy to enlist in the Christian cause and to give his whole-hearted allegiance to the Kingdom of God, with Christ as his Supreme Leader.

I. PUBLIC WORSHIP

"If there is in all the world a boy who does not believe that there is a God, let him turn to Nature; let him examine the tiniest flower in the valley to the mightiest mountain that unites the earth and sky—and his answer must always be the same. He cannot even turn around in his own backyard, or gaze into the heavens without realizing that there *is* a God."

While on the deck of a vessel one evening at sea, a group of French unbelievers was denying the existence of a God. At length they proposed to get the opinion of Napoleon, who was standing to one side and alone with his thoughts. On hearing their question he solemnly raised his hand and, pointing to the starry sky, he asked, "Gentlemen, who made all that?"

Agassiz, the great scientist, said that the man who studies the rocks of the earth "moves along paths worn deep by the divine footsteps;" that is worship. A boy of seventeen sits in church; the tones of the organ quiet him; the prayer of the minister makes him search his own heart to see if he is keeping it true to his ideals; he remembers that the Church in all the world has helped, as nothing else, to make honor and morality live and thrive; he sees his neighbors worshiping with him; the hymns and the sermon send him away feeling that God needs his life, too, in carrying on His great work in the world; that is worship—the kind that every boy needs and may have.

Then, too, Christ founded that Church because he full well knew that there would come into every earnest person's life discouragements, perhaps failures, and He knew that by keeping in touch with a company of earnest Christian folks, all with like problems, there would come fresh inspiration and help. The evil in the world is always organized, so that all those that stand for good in its every aspect should also associate themselves together for the fight. Only when the Church has been an aggressive eager church has it been able to accomplish God's will for it; and for any church to keep alive and aggressive, it must have as a very real part of it a body of young men. Armies are always young men. The Church needs you—and you need the Church. Let your worship have an "action" element in it.

PUBLIC WORSHIP.....Total Credits—200

REQUIRED TEST—Maximum of Credits—150

Attend regular Sunday church worship, participating in service—2 credits for each service attended up to 100 credits—and—

Volunteer some definite service to the Pastor, involving at least eight hours—50 credits.

ELECTIVE TESTS—25 credits each up to 50

1. As an act of worship, beautify church building by planting trees, shrubs, vines, or flowers, involving at least eight hours' service.
2. As an act of worship, accomplish special piece of service for the church as prescribed by the *Leader* or a church official, involving at least eight hours' service.
3. As an act of worship, aid the church in distributing food, clothes, and so forth to poor at Thanksgiving, Christmas, or other occasions.
4. As an act of worship, deliver church calendars or notices or collection envelopes, involving at least eight hours' service.
5. Be a reasonably regular attendant at the church prayer meeting.
6. Be a member in good standing and a reasonably regular attendant at the church Young People's Society.

II. GOD IN NATURE AND ART

Nature

"Isn't that a superb grove of spruce?" cried the one wide-awake young engineer to his comrade, while surveying recently for a mountain railroad in the West. "They look as if they had come together over there for a meeting of some sort. They are an all-star team, that's sure!"

"They'd make about six good ties apiece," grunted the other engineer.

What do you see when you take a walk out into the big silent places? Can you *see* God and *feel* God and *hear* God at work in the most wonderful workshop ever known, or do you just see so many cords of wood and so many cubic feet of building stone and so many carloads of gravel? Do you think birds just happen to be masters of the art of singing? Do you suppose that the exquisitely shaped and tinted flowers just happened? Or do you see so well and understand so perfectly that you appreciate the hand of God in it all and realize that it has been provided for you for a purpose, so that your life, too, may be deeper and more lovely?

Music

Music has always had a profound influence on man. Even the savage tribes respond in a marvelous way to their crude music. Can you appreciate real music or has your conception of what music ought to be been ruined by the cheap trash of which we hear so much these days? Every boy should cultivate an appreciation of the best in music. Darwin paid no attention to good music, so lost the power to enjoy it.

There is a universal law of harmony. God speaks to men through music just as he does through nature and poetry and sunsets and waterfalls. The heart understands the language of rhythm and harmony. If you are seeking the best, you must come to appreciate Beethoven and Mendelssohn, and the harmonies of the great singers.

Poetry

Too often poetry in the mind of the American boy suggests either Mother Goose Rhymes or Milton's "Paradise Lost" and,

consequently, he misses the message of poetry. A sunset, a star-filled night and flower gardens are all poems, but each written in a different language. Much of the finest English we have has come to us as poetry. Poetry stimulates the imagination as nothing else can. What a pity, then, that any boy should miss the messages of Tennyson and Longfellow, and Lanier, and Burns and Service and Kipling, James Whitcomb Riley, and Eugene Field, all because he "does not care for poetry." Every boy should have a favorite poet and come to understand him and appreciate his messages, just as he does his favorite writer of prose.

Art

Do you love the beautiful as you see it everywhere? Have you developed good taste? Can you get the message the artist has put on the canvas? All nature, all musicians that are masters, all poets that are real, all artists that have stirred the world with their brushes are but children of the Great Creator, thinking His thoughts after Him, interpreting Him to us, if you please, in language that we can understand. Strive to cultivate these things, for they enrich and deepen and broaden life immeasurably. Christ had a marvelous appreciation of nature and music and poetry and art, and from that appreciation He drew most of His matchless illustrations as well as His finely exact parables. He understood all of the languages of God, and, by cultivation, He found deep responses from within his own soul.

God has spoken to men and in answer to the divine call from within, they have poured out their best and spent their lives in producing beautiful music, charming poetry, chaste forms in art, that will bring the same thrilling response into the life of a boy and will stay with him to bless his old age, if he can but appreciate and understand.

NATURE AND ART.....Total Credits—100

NO REQUIRED TEST OFFERED

ELECTIVE TESTS—25 credits each up to 100.

Make different choices each year.

1. NATURE

Attend an educational talk on:

a. Making of the Earth.
b. The Story of the Stars.
c. The Development of Plant and Animal Life.
d. Matter, Its Nature and Orderly Arrangement.
e. Man's Place in Nature.
f. Life, the Mysterious Organizer.

or

g. Read a book selected by the Leader and discuss it before the group.

2. MUSIC

a. Identify ten standard hymns or pieces of classical music by ear.
b. Take lessons six months on some musical instrument.
c. Play in orchestra or band.
d. Sing three approved selections before the group.
e. Attend a high grade concert by an orchestra or a choir that will render some famous oratorio.

3. ART

a. Name three kinds of architecture and describe differences.
b. Name five pieces of classic statuary.
c. Write a 200-word description of a sunset, waterfall, rural scene, or flower garden that you have seen.
d. Visit an art gallery of at least 100 pieces—note the special things that appeal to your higher nature.

4. POETRY

a. Recite three standard poems.
b. Read one book of verse, satisfactory to the *Leader*.
c. Recite Psalm 1:1–60; 23:1–6; 19:1–14; 8:1–8.
d. Name one poem each of twelve famous poets.
e. Write eight lines of acceptable poetry yourself.

III. CHURCH SCHOOL LOYALTY

It is surprising to what a great extent the really outstanding men in almost every field of effort in America are church and Sunday school men—profound believers in the church school! If you doubt it, take a paper and pencil and list your outstanding men, either locally or as a state or even as a nation, and then ascertain just where they line up with things definitely Christian. When you have entirely satisfied yourself that my contention is right, let me see if you, too, can accept my conclusions from these interesting facts. The outstanding men in many realms represent the big, brainy, broad-gauge successful men. If the big, brainy, broad-gauge, successful men of America believe in the Sunday school to such an extent that they generously support it, not only with money but by attendance, participation, and loyalty, then it just naturally must be worth while—so much so, that no boy in America can afford to say, "Oh, it isn't worth while, it's only for little kids and women." You cannot afford to accept that evidence without investigation. The strongest influence for good that ever came into my life came from my attendance and participation in the church school group led by a devoted, intelligent, genuinely Christian leader. Every boy in that group made good. I wonder why? You say, "It just happened." No, things do not just happen. There is a reason for everything, and one of the reasons that every boy in that group made good in the twelve professions now represented was because of the powerful influence on their ideals and their conduct as a result of attendance and participation in all of its activities, guided and directed as we were by a wise leader of the group.

Every boy who wants to round out his life, should attend Sunday school regularly and take an active part in its study and work. He needs to know much about the Bible, on which much of English civilization and literature is founded. He needs to gather with others of his own age, as well as mature men and women and little children, as a member of the church school army, the greatest army the world has ever seen.

Thousands of America's strongest, brightest, cleanest older boys are lined up today with the church school, attending regularly and taking part, proud to feel that they belong to it and that it belongs to them.

If the Sunday school of your choice is not exerting that sort of an influence on the lives of boys, there is something wrong and you are the fellow to see what is the matter. Perhaps to date you have gone to "get" instead of to "give." Perhaps you have been insisting that it's the teacher's class instead of *your* class. Perhaps you have been only lukewarm in your enthusiasms and have been expecting "some one else" to supply *your* part, to carry *your* responsibility.

The church school has come to stay. It has a place of vital importance for every earnest, purposeful older boy. Get into the game and lift, don't lean.

CHURCH SCHOOL LOYALTY.....Total Credits—200

REQUIRED TEST—150 Credits

Attend your church school regularly—2 credits for each attendance up to 100 credits.

Show right attitude toward the class work (study of lesson; cooperative spirit)—25 credits.

Assume some definite class or church school responsibility, covering six months' period or requiring eight hours' work, to the satisfaction of Leader (for instance, such tasks as serving as class or departmental officer or on working committee)—25 credits.

ELECTIVE TESTS—10 credits each up to 50

1. Attend, as a registered delegate, some religious conference or convention, reporting carefully upon it to the school or group, upon return.
2. Secure at least one new member for the school.
3. Assist in church entertainment, social, or picnic, involving at least eight hours' service.
4. Act as the superintendent's assistant, subject to call, for a six months' period.
5. Serve for six months as an assistant teacher or director of activities for a class of younger boys.
6. Assist in a definite piece of service to the extent of eight hours for any of the church organizations, such as, set up banquet tables, put up decorations for special occasion, move and set up folding chairs.
7. Supervise three hikes for groups of younger boys from church school, Y. M. C. A., playgrounds, or mission.

8. Act as librarian, secretary's assistant, usher, etc., for a period of six months, or involving at least eight hours' service.

IV. KNOWLEDGE OF THE BIBLE

"The Bible is like a telescope. If a man looks through his telescope, then he sees worlds beyond; but if he looks at his telescope, then he does not see anything but a telescope. The Bible is a thing to be looked through, to see that which is beyond; but most people only look at it."

The Bible is not only the greatest book in the world, but the most popular. There are seven times as many Bibles sold each year as of the next best seller, all kinds of books included. This is evidence that it is widely used and studied. No man is educated who does not know his Bible. John Ruskin, the great Englishman, said that whatever there is of merit in anything that he has written is due to the fact that, when a child, his mother made him familiar with the English Bible.

Daniel Webster, the great American, said, "If there is anything of eloquence in me it is because I learned the Scriptures at my mother's knee." Count Tolstoi, the great Russian, testifies, "Without the Bible the education of the child today is impossible."

Dr. G. H. Ferris, a great preacher of Philadelphia, said that just so long as human beings have sorrows and sins, tears and tasks, so long will the Bible keep its power and beauty, and be enthroned in the human heart.

Dr. Henry Churchill King, the great teacher, of Ohio, says that we need three things in order to make the most of life—character, influence, and happiness—and that these three can be gained by Bible study. W. T. Grenfell, the great medical missionary of Labrador, says: "I believe the Bible contains all necessary truth about the way a man should walk here below. To me it means everything. Take it away and you can have all else I possess."

Thousands of boys in organized groups throughout the country believe it is worth while to meet for regular periods of definite Bible study each week. Graded curricula have been developed by the ablest educators, so that a boy in a modern church school

gets just the sort of Bible study that he needs at just the proper periods in his development.

KNOWLEDGE OF THE BIBLE.....Total Credits—100

REQUIRED TEST—Maximum of Credits—50

Ability to turn readily to a given chapter and verse—10 credits.

Write in your own words the two great commandments given by Christ in Luke 10:27—20 credits.

Tell your group the story of an impressive incident in the life of an Old Testament character and indicate why it impressed you —20 credits.

ELECTIVE TESTS—25 credits each up to 50

1. In your own language, write the ten commandments for a boy of today.
2. Take a course of study covering the general topic, Where We Got Our English Bible, or attend four educational talks, or read a book approved by the *Leader* on the same subject.
3. Take a course of study in Old Testament History.
4. Take a course of study on the Life or Teachings of Jesus.
5. Take a course of study on Heroes of the Bible.
6. Take a course of study covering the life of St. Paul.

V. STORY OF CHRISTIANITY

The Christian Church has been a powerful factor in all history since the days of its Founder. Jesus' way of living has become more and more the commonly accepted way as the years have rolled by. From one little church in Jerusalem of but a handful of followers on down through the centuries, as empires have risen and fallen, Jesus' way of living has been making more and more converts until today, at the close of the World War, men are striving as never before to apply the teachings of the Master to all life. The growth of Christianity is the most wonderful fact in the world. It is quite necessary for the boy who is to so soon take his full place in a new world, to have clear in his mind the elements of this growth. The Story of Christianity is far more inclusive than church history and more interesting. We are seeing the whole world struggle toward Jesus' way of living as the very best of all the ways that have been tried out by men.

Christianity has taken one benighted portion of the world after another and by teaching, healing, and serving has brought about marvelous changes. The missionary has always been the forerunner of civilization as we understand it. You will find this story of Christianity, with all its widely diversified chapters, the most important and most interesting story in the world.

STORY OF CHRISTIANITY.....Total Credits—100

REQUIRED TEST—Maximum of Credits—50

Explain to your Leader what Christianity is and means, as you understand it—25 credits.

Tell your group of the changes that took place with the coming of Christianity into a non-Christian land, as, for example, see last chapter of "Uganda's White Man of Work"—25 credits.

ELECTIVE TESTS—25 credits each up to 50

1. Attend a course of study on the story of the Christian Church, or attend four educational talks on the same subject, or read a book, such as "Landmarks of Church History," Cowan or Rowe.
2. Take a course of study on Christian heroes, or attend four educational talks on the same subject, or read a book on this subject selected by the *Leader*.
3. Tell your group the story of your favorite Christian hero and tell why you admire him.

VI. MY CHURCH AND I

No intelligent boy would care to live permanently in a city that had no churches. The Christian Church occupies a place of first importance in every American community. Churches are as necessary and vital in their realm as the day schools are in their realm or as civil institutions are in their realm. From them emanates the organized and active influences that make America Christian. Next to the daily press the Christian Church is the most powerful determiner of public opinion. Missions are the result of the Church. Hospitals are the result of the Church. Organized charity is the result of the Church. Christian colleges and education are the result of the Church. Most national re-

forms were born in the Church. Then, if these facts be so, every boy that is headed for a broad-gauge useful life must come to understand the Church—its organization, its management, its problems, its privileges, its responsibilities, and its efforts. Most folks that we dislike, we dislike because we do not understand them. We do not know them intimately. To a very large extent, when there is prejudice against the Christian Church it is due to lack of this intimate acquaintance and understanding.

MY CHURCH AND I.....Total Credits—100

REQUIRED TEST—Maximum of Credits—50

Take a course of study on the following topics, or

Attend a series of talks by the Pastor or someone designated by Leader which will include the following subjects:

a. Why Have a Church?

b. The Place of the Church in a Boy's Life.

c. A Boy's Right Attitude to the Church.

d. What Being a Christian Really Means.

ELECTIVE TESTS—25 credits each up to 50

1. Write a statement on Why a Boy Should Join the Church and present this to the group for discussion.
2. Take a course of study recommended by your denomination on the organization and agencies of the church.
3. Contribute regularly to the support of the church and its benevolences.
4. Name and describe three movements in which different denominations have cooperated toward a common end.
5. Assume some definite and regular church responsibility, after careful conference with Pastor and *Leader*.

VII. PERSONAL DEVOTIONS

Just as flowers respond to sunlight, the human heart responds to devotion and worship. Just as exposure to sunshine is necessary for fine, healthy, beautiful plants, so exposure to God's Spirit is necessary for helpful, attractive, Christian lives. God is a loving Father. He is tremendously anxious to help. He cannot unless we let Him. Even Jesus when He was on earth felt

the need of a daily quiet hour, when He could talk out His perplexities and problems with His Father. He went apart often to pray.

Could there be a better time than just in the morning quiet, after a recreating sleep, with another day of new opportunities for service just opening? The mind is clear and free from the distractions of the later hours. Is there a better way to start another day of growth and usefulness than to talk over with God the best way of spending that day?

Is there any doubt about the value and real help of such a practice? The men who have accomplished most in life have been men of prayer, who were also familiar with God's word. General Gordon, Gladstone, Sir Walter Scott, Livingstone, were men of this type. Every boy in training must keep close to the Master Trainer. Jesus knew the real values of life and we must remember He found need of this in His training.

Haphazard Bible reading, while it is better than none at all, is never very satisfactory. It is far better to follow some definite plan. There are many suitable books prepared for this purpose. Ask your *Leader* about them. If your entire group is not using the same study, he will be able to suggest just the one for your use.

PERSONAL DEVOTIONS.....Total Credits—100

REQUIRED TEST—Maximum of Credits—100

Give some time each day to Bible reading and prayer.

Your Leader will be able to suggest numerous books and pamphlets along this line, both for study and meditation, that will prove suggestive and helpful.

VIII. PERSONALITY ANALYSIS

Continue the personality analysis begun and explained under the Intellectual Training Program and continued through the Physical Program.

What are you doing to secure proper and adequate religious impression and then to find proper channels for its expression in constructive ways? Are you gradually rising to a place of leadership or not? If not, there is something wrong with the activities

in which you are engaging. Are you acquiring self-control? Real leaders always have it. It is the result of health and faith in what is good, seasoned with personal convictions. Are the activities of your daily life resulting in these five admirable habits? (1) Are you conscientious in your efforts and in your relationships with God and men? (2) Are you being true to yourself and your ideals and your convictions? You can fool some of the people most of the time and possibly most of the people some of the time, but you cannot fool yourself. (3) Can you look yourself in the eye, conscious that you are living the very best you know how? (4) All these things together tend to determine your spirit. To say of a man that he is a fine-spirited fellow is saying a great deal, for the spirit of your life is the essence of all you do and think and hope and aspire to. (5) Is your life full and overflowing with good will? That is a very severe test. Apply it honestly. It is an accurate measure of your growth and development spiritually.

PERSONALITY ANALYSIS.....Total Credits—100

REQUIRED TEST

1. Be awarded a maximum of 50 credits for right attitude toward receiving for yourself a deep spiritual development.

2. Be awarded a maximum of 50 credits for the following spiritual personality analysis:

To what extent have you developed in:

a. Self-control.
b. Leadership.
c. Forming good habits.
d. Conscientious effort.
e. Unselfishness and teachableness.

Note. 10 credits each allowed for excellent development, 7 for good, and 3 for fair.

CHAPTER V

THE SERVICE TRAINING PROGRAM AND ACTIVITIES

"Jesus advanced in . . . favor with . . . men"—Luke 2:52.
"Thou shalt love . . . thy neighbor as thyself"—Luke 10:27.

As an older boy grows older, the gang with which he was perfectly satisfied as a younger lad no longer entirely satisfies him. He craves wider and wider relationships. He is reaching out after full citizenship and finds himself increasingly interested in whatever interests the whole community. He comes to the place where he, too, wants to help. This is evidenced by the fact that invariably a purposeful high-class older boy is interested in getting as many suggestions as possible on how he can be of service to the home, to the school, to the church, and to the whole community life about him. He loves responsibility and is anxious to try his hand at many things in which full-fledged citizens interest themselves. He begins to think more definitely about what he is going to do with his life. He begins to dream dreams and plan plans of the definite things that he is going to accomplish for the benefit of mankind. That is a sign that he is growing and developing. The normal boy is tremendously anxious to be of service; consequently it is at this time that service habits should be formed. Begin early to have a genuine interest in the other fellow.

The story is told that Lincoln a few months before his death was discovered by one of his friends almost exhausted after a long, tedious day of having listened to the appeals of an endless line of visitors. The friend protested that Lincoln was wearing himself out and needlessly. "You ought not let these people take your time this way," he said. Lincoln answered that helping people was all the fun he had; then he added: "When I die, I want it said of me that I plucked a thistle and planted a flower wherever I thought a flower would grow."

Jacob Riis, although born in Denmark, made a great contribution to America in the services that he rendered in the course of his regular work. It was he who first fought the big city slum and wiped out tenement after tenement by his persistent effort. It was he who fathered the great playground movement which has resulted in such helpful ways. Constantly as he went about his work as a newspaper reporter, he was stimulating the good and bringing about better conditions for everybody.

It is scarcely necessary to point out how Jesus demonstrates every phase of "good will" in His life, work, and teaching. He was a most diligent and efficient workman. "My Father worketh hitherto and I work," He said. His personal goodness is beyond dispute. "Which one of you convicteth me of sin?" was His challenge to His enemies. His attitude to social goodness is expressed by others when they said: "He went about doing good" and by Himself in the statement, "I am in the midst of you as he that serveth."

No other teacher ever laid such emphasis as did Jesus upon the necessity of right conduct in relation to one's fellows.

He makes it the very condition of judgment and destiny. "Inasmuch as ye did it unto one of the least of these, ye did it unto me." He set it up as a fundamental ideal in a golden rule of conduct—"Whatsoever ye would that men should do to you, do ye even so to them," and joined it to the first great commandment—"Thou shalt love the Lord thy God . . . and thy neighbor as thyself." He made it clear to His still-too-selfish disciples that greatness consists not in power and dominion over others, but in service to others.

"We live by radiation, not by absorption," and the purpose of the whole Service Training Program is to help a boy to train to do his part. The Kingdom of God on earth must be built, and no greater thing can be said of any boy than that he trained himself to serve others. Jesus thought it was worth while to go about everywhere doing good.

I. HOME RELATIONSHIPS

Grover Cleveland, on the eve of his election to the governorship of New York State, wrote in a letter to his brother:

"I have just voted and I sit here in the office alone. If mother were alive, I should be writing to her and I feel as if it were time for me to write to someone who will believe what I write. . . . I shall have no idea of reelection or of any high political preferment in my head, but be very thankful and happy if I serve one term as the people's Governor. Do you know that if Mother were alive I should feel so much safer? I have always thought her prayers had much to do with my successes. I shall expect you to help me in that way."

You are in a position now to show your mother that fine, chivalrous consideration that every mother appreciates. You can now be the escort and protector of sisters or small brothers and as you approach manhood you can become more and more your father's companion and his dependable helper.

The COMRADE is entering more fully into partnership with the other people in the home. He knows more about the family budget than when he was younger and he can help the family by strict economy in his own expenses, or, if necessary, by actually contributing to the support of the home. He will learn more of his father's work and will, if possible, help in it. This is comparatively easy if Father is a farmer, builder, or other outdoor worker, but much more difficult where Father's work is done away from home. Even in this case, however, every real COMRADE will find some way of sharing in the burdens and responsibilities of the family and will take over as his own some definite duties about the home.

Unfortunately, many boys do not have the privileges of normal home life. Death of one or both parents, divorce, or other disaster, social or physical, frequently steps in and robs boys of happy home relationships. But whether a boy lives in his own home, in an institution, in a boarding house, or with distant relatives, he can study the situation, and at least do his part towards making the particular place where he lives as nearly a good home as it can be made. Occasionally I see a boy living in an institution or a boarding house, who comes nearer to helping maintain a home atmosphere where he *does* live than the boy who enjoys a favored normal home.

The boy who doesn't make good as a son and as a brother does

not deserve ever to have a home of his own, for he is certain to be unfit to be a husband or a father.

HOME RELATIONSHIPS.....Total Credits—300

REQUIRED TEST—Maximum of Credits—150

Give evidence that your home spirit and relationships are of high grade so far as it is in your power to make them so, and

Accept responsibilities for regular home duties such as chores, caring for yard, auto, chickens, garden, animals, furnace, or other home responsibility assigned by parents to the extent of several hours of work a week.

Elective Tests

First Year's Choices—30 credits each up to 150

1. With your *Leader* select an open lot where children and young folks recreate near your home and keep it clear of tin cans, broken bottles, and similar rubbish, for a period of two months.
2. Clear the grounds around the house of all unsightly weeds and rubbish and keep yard clean for a period of six months.
3. Do the family marketing under the direction of your parents for one month.
4. Make an accurate invoice of all salable articles in the home and estimate their present value, such as a fire insurance list.
5. Keep your own room or shop clean and in order for a six months' period or its equivalent.

Good for 10 Credits Each

6. Entertain boy friends in your home.
7. Help prepare for the coming of friends in your home.
8. Take your mother or father to some pay entertainment for which you provide the funds.
9. Care for the house or the other children in the home while parents are away.
10. Entertain girl friends in your own home.

Second Year's Choices—30 credits each up to 150

1. Attend educational talk or a discussion, or read a book on:

What a Young Man May Expect of a Home, and
What a Home May Expect of a Young Man.

2. Investigate the home life of some other race and contrast its advantages and disadvantages with American home life (oral or written).

3. Prepare theoretical annual budget of your personal expenses.

4. Estimate carefully total net cash that could be secured by a forced sale of any specified list of household goods and real estate or farm, animals, crops, or implements.

5. Keep your own room or shop clean and in order for a six months' period or its equivalent.

Good for 10 Credits Each

6. Entertain your group in your home in a simple way.

7. Take your mother or father to some pay entertainment for which you provide the funds.

8. Care for house or the other children in the home while parents are away.

9. Entertain girl friends in your own home.

THIRD YEAR'S CHOICES—30 credits each up to 150

1. Make a written or oral statement to your group on the subject, An Employed Boy's Wages; Do They Belong to the Boy, the Parents, or Both?

2. Meet some specific need in your own home at an investment of at least five dollars. This may be books, pictures, plants, furniture, or kitchen equipment.

3. Contribute regularly to the household expenses out of your earnings.

Good for 10 Credits Each

4. Attend educational talk or a discussion, or read a book on: Thrift in Relation to Home Life.

5. Suggest five characteristics of ideal home life and defend each.

II. FRIENDSHIP AND SOCIAL LIFE

If we are to live happily in our larger community family circle, then one of the things we must learn early is how to make friehds

and how to keep them. Have you ever noticed a roomful of folks engaged in social conversation? At the center usually is a man of fine personality, who feels perfectly at home with all sorts of other folks and he is talking away on first this subject and then that, or perhaps reciting some personal experience or telling a story. He is popular because he is friendly and sociable. His life is full of good will and he is glad that he is living. From this center the crowd grades off gradually until out against the wall are the folks who seem ill at ease, have nothing to say to anyone, and seem bored to death. One of the finest things that education and travel give a man is the art of feeling at home with all sorts of folks under extremes of condition.

Then, too, some boys develop much earlier than others an interest in girl friendships. Some boys are natural and at ease when mingling with their girl friends, and other boys find it decidedly difficult to be pleasing and acceptable. But the boy who develops slowly in his ability to mingle happily and presentably with girls should neither avoid them nor feel overly embarrassed. It is not always the boy with the gaudiest ties or the smoothest party manners for whom girls have the greatest respect or affection. In the final analysis, courtesy, kindness of heart, physical vigor, and a clean fine attitude toward social life in general, will win a boy all the girl friends he needs, and, for a time at least, several good comradely girl companions may be better for him than to give all his attention quickly to one special girl.

"Friendship is the greatest luxury of life," but to have friends one must be worthy of them. Friendship is a partnership; you must not expect to have friends but yourself be unfriendly. One of the finest things that can be said about any older boy is to characterize him as "a friendly fellow."

Cultivate the fellows who know more and are a little better than you.

FRIENDSHIP AND SOCIAL LIFE.....Total Credits—100

REQUIRED TEST—Maximum of Credits—70

Who is your boy friend or chum?

Give evidence that you enjoy being with a group of other boys.

State clearly what the motives and attitude of your gang are—its social standard.

Have you and your chums a definite positive standard relative to your relationships with girls?

ELECTIVE TESTS

FIRST YEAR'S CHOICES—10 credits each up to 30

1. Entertain satisfactorily, by telling stories, music, stunts, recitations, and the like.
2. Attend two approved parties or social evenings where there are girls.
3. Give an occasional evening to some unpopular or unfortunate boy who needs friendship. Report same confidentially.
4. Explain to your group why you do not believe in a double standard of morals.
5. Be graded for manners, courtesy. and good breeding, as follows:

Excellent, 10; good, 7; fair, 3.

SECOND YEAR'S CHOICES—10 credits each up to 30

1. Entertain by stories, music, or stunts.
2. Attend two approved and properly chaperoned parties or social evenings, escorting girls to both events.
3. Attend a formal dinner or banquet.
4. Give an occasional evening to some unpopular or unfortunate boy who needs friendship. Report same confidentially.
5. Be graded for manners, courtesy, and good breeding as follows:

Excellent, 10; good, 7; fair, 3.

6. Discuss with your group what sort of a fellow you want to have go with your sister.

THIRD YEAR'S CHOICES—10 credits each up to 30

1. Entertain by stories, music, or stunts at regular meeting of your own or some other group.
2. Attend two approved and properly chaperoned social evenings, escorting girls to both events.
3. Attend a formal dinner or banquet.

4. Debate the question, Which is more desirable—friends or money?

5. Attend an educational talk or a discussion, or read a book on: What Friendship Involves.

6. Read "Adventures in Friendship," by Grayson.

7. Participate in a "Campaign of Friendship" among the boys of the high school.

8. Be awarded a maximum of ten credits as follows:

Are you considered by your group as a thoroughly friendly fellow?—10.

Are you considered by your group as approachable but not an especially friendly fellow?—7.

Are you considered by your group as "square" but difficult to know well?—3.

9. Discuss with your group the sort of girl you propose to find for your future wife.

III. COMMUNITY RELATIONSHIPS

The War has made of every community a family. We have discovered as a whole nation what some men have been telling us for years, that we can do anything that ought to be done in any community if we will but agree to do it together. It is certainly true that it is impossible for any man to "live unto himself or die unto himself." What we do and what we are affects every other person in the community in which we live. If we have a dirty, unkept, unsightly yard that is unsanitary, it not only becomes a danger to our own health but to our neighbors for a whole block away. If we have a clean, tidy, well-kept yard, everyone else benefits from it and is led to go and do likewise. Just so in every realm of our lives. If our characters and our work are all they ought to be, we are welcomed into any community; if they are not, we find ourselves unwelcome. No boy can any longer "do as he pleases"; he must constantly consider other folks all about him.

It is a splendid thing for an older boy to become a community booster, for it is this community spirit, this "help the other fellow" idea, that brings any town or city to the front. I know of

two large cities not an hour's ride apart; one has caught the idea of proper community relationships on the part of everyone—man, woman, and child. As a result it is a clean, tidy, well-managed, healthful city. The other city is "dead." No one cares; trash and rubbish litter the streets; the sanitary conditions are not good; the city is split up into sections that are always fighting one another. The boys on one side of the river won't associate with the boys on the other. One high school cannot engage in athletic contests with the other high school, because they invariably fight. Often citizens of this town apologize for living in it and explain that it is only because of necessity that they stay at all. Would you care to live in that sort of a town? I am sure you would not.

Community life is the sum total of all the individual lives that are in it. Therefore, the kind of a life a boy lives will either raise or lower the level of the life in the community. The man who penned the following lines had the right idea: "I pass this way but once, therefore any goodness that I may do, any flowers I may plant, any smiles that I may provoke, any gladness that I may bring, any burden that I may bear for my fellow-man, will make my own life a greater satisfaction."

"William H. Baldwin, Jr., of the famous locomotive works, was an exceedingly busy railway man, but he was seldom too busy to lend a helping hand to one in need. From the window of an elevated train, he saw upon the street the white face of a child that had in it an appeal of suffering he could not resist. He abruptly left the train and found that the child needed hospital treatment. Then he was not satisfied until the child was safely lodged with proper care in a hospital. Baldwin heard that a woman had been committed unjustly to a New York State prison. He found convincing evidence of her innocence and obtained her pardon from Theodore Roosevelt, then Governor. On an European trip he found a distressed woman with a sick child. Her stateroom accommodations were poor. His own spacious quarters became at once uncomfortable to him and he gave them up to the mother and child."

The whole of America needs men like William H. Baldwin. If we are to have them ten years from now they must be "in training now."

COMMUNITY RELATIONSHIPS.....Total Credits—100

REQUIRED TEST—Maximum of Credits—50

Render some specific community service suggested by your Leader, and

Contribute at least five dollars, all of which you have earned during the year, to some worthy cause dealing directly with the boy-life of the world.

Elective Tests

First Year's Choices—25 credits each up to 50

1. Be a working member of some community organization whose objective is service or community betterment; for example, a High School Club, whose purpose is "To create, maintain, and extend through the school and community high standards of Christian character," or the Employed boys' Brotherhood, whose purpose is "To unite Employed Boys to strive for their own higher self-realization and in the spirit of Christ to use these larger abilities in service to other Employed Boys and the community."
2. Assist in some public entertainment.
3. Join with other boys in helping, without charge, to harvest the crops or do other work of sick or disabled neighbor.
4. Make a definite sacrifice in time, money, or labor, for someone more needy then yourself.

Second Year's Choices—25 credits each up to 50

1. The same as number 1, First Year.
2. Help to promote and develop a corner lot into a baseball diamond or tennis court for use of boys of neighborhood.
3. Assist the local improvement association in some task of neighborhood betterment.
4. Know and locate twenty prominent public-spirited citizens in the county, give business relations of each, and indicate how they are helpful to the community.
5. Assist in keeping at least one mile of road in shape, or an equivalent of twelve hours' work on public highway without pay.
6. Make a definite sacrifice, in time, money, or labor, for someone more needy than yourself.

THIRD YEAR'S CHOICES—25 credits each up to 50

1. The same as number 1, First Year.
2. Promote and develop a corner lot into a baseball diamond or tennis court for use of boys of neighborhood.
3. Assist a sectional improvement association in some task for neighborhood betterment.
4. Know and locate twenty prominent public-spirited citizens in your county, give business relations of each, and indicate how they are helpful to the community.
5. Conduct in the group a discussion to bring out the ten leading ways in which employed or high school boys spend their leisure time.
6. Make a definite sacrifice, in time, money, or labor, for someone more needy than yourself.
7. Supervise the raising of funds for the relief of a poor family by the purchase of supplies and fuel for one month from funds collected for that purpose by you or your group.
8. Join with other men and boys in helping harvest the crops or do other necessary work of sick or disabled neighbor.

IV. CITIZENSHIP

Developing right community relations is one of the finest preparations for citizenship. It is applying the principles we have been talking about to state and nation, as well as to your community. It is a splendid thing to be a good local citizen; it is a still more splendid thing to be a good state citizen; it is a greater thing yet to be an intelligent worthy national citizen, for only as the nation is strong and well supported can the state and individual community thrive. It is the duty of every loyal citizen to be intelligent about his government. He should begin early to develop an interest and opinion based on careful information concerning national issues, so that when he becomes old enough to vote he can do so for the betterment of the whole nation.

American citizenship is a priceless possession. Any man who treats it lightly or refuses to accept the obligations and responsibilities it imposes upon him should be deprived of it. As an American citizen, you are a member of one of the greatest cor-

porations on earth. You should, therefore, be eager to gain as much insight into the affairs of this corporation as your time and opportunity afford. While American history is resplendent with noble deeds, there is no doubt that, with the new world responsibilities settled upon us as a result of the War, we must have in the future even a higher type of citizenship and this standard must be much more general than in the past.

The following tests are offered as a suggestive guide as to what sort of information and training you need to make you a worthy citizen.

CITIZENSHIP.....Total Credits—100

REQUIRED TEST—Maximum of Credits—50

Read

"The Making of an American,"—Jacob Riis, or "The Government, What It Is and What It Does"—Clark, or "An American in the Making"—Abbott, or equivalent.

ELECTIVE TESTS

FIRST YEAR'S CHOICES—25 credits up to 50

1. Attend a primary election.
2. Attend two sessions of City Council.
3. Attend two sessions of any regular court.
4. Attend educational talk or a discussion, or read a book on Taxes and What Becomes of Them.
5. Visit with an adult a County Court House, and have the various departments explained.
6. Visit a public institution, such as jail, reform school, poor farm, or insane asylum.

SECOND YEAR'S CHOICES—25 credits each up to 50

1. Assist in the conduct of a demonstration of a state or national election in the school.
2. Assist in a trial, reproducing actual court procedure, in the school or group.
3. Visit the State Capitol.
4. Visit the National Capitol.
5. Give a written or oral report, in the group, of the three views regarding any local or nearby strike or lockout; that is, the strikers' view; the employer's view; the sentiment of the public.

THIRD YEAR'S CHOICES—25 credits each up to 50

1. Take part in a demonstration of a state or national election and mock trial, conducted in the group or school under real legal leadership.

2. Attend educational talk or a discussion, or read a book on some national problem, such as:

   a. The Immigrant Problem, or

   b. The Negro Problem, or

   c. Cooperation between Capital and Labor.

3. Take equivalent of one year's work in Civil Government, or pass Civil Service examination for some government position.

V. TRAINING FOR SERVICE

Human beings are so closely bound together by the ties of need in this old world that our only excuse for staying in it is our willingness and ability to serve—to help the other fellow. Then, too, the thrill of real joy comes only to those who serve. It is a thrill that leaves no sting behind it, a thrill that nothing can efface.

You have been working out an all-round program; laying the foundations of a strong personality. Now you are reaching the place where your own special contribution to the social life of which you form a part is ready for expression. You, perhaps, are feeling that you would like to be prepared for the day when opportunity is going to knock hard at your door with a call to service. If you act on that feeling, you have justified your existence.

A desire to save life is good, but it takes training to be ready. A First-Aid Course may make life possible for some man or woman. A desire to lead a group of younger fellows to richer, all-round development is commendable, but such work takes training. A teacher training course might make it possible for you to help some smaller chaps to lives of strength and virility. A desire to train folks in recreation is good. A story-telling course or a course in recreational leadership would equip you for many little services to the sick and needy.

You may not be an easy "mixer"; you may not be strong on entertaining; you may think there is no place for you in the realm of service; that very training might prove to be a process of self-discovery for you, as it has in many other cases.

As a boy, Lincoln always said, "I will get ready, maybe my chance will come." It came. And it would have come just the same whether he was ready or not, only the results would have been different; it would have meant failure instead of success. Get some special training and when *your* chance comes you will be ready.

TRAINING FOR SERVICE.....Total Credits—100

REQUIRED TEST—Maximum of Credits—50

Give evidence that you are training for service in special study and practice groups.

ELECTIVE TESTS

FIRST YEAR'S CHOICES—25 credits each up to 50

1. Attend a given course of teacher training covering the field of teaching boys.
2. Take regular course in First Aid to the Injured.
3. Assist regularly with a group of younger boys as a gymnasium leader, assistant Scoutmaster, athletic coach, Sunday school teacher, or camp leader.
4. Complete one year of high-class physical education acceptable to the *Leader*.

SECOND YEAR'S CHOICES—25 credits each up to 50

1. Attend a course of study on Leadership of Bible Study Groups.
2. Lead a group of younger boys on hikes, or in group games, or coach them in team games or track.
3. Attend a training conference or training camp especially conducted for older boys.
4. Attend a summer school of work with boys.

THIRD YEAR'S CHOICES—25 credits each up to 50

1. Attend a course of study on Leadership, where topics like the following will be taught:

a. Preparation for Sunday School Teaching or Y.M. C. A. Work.

b. Preparation for Boy Scout Work.

c. Preparation for Playground Work.

d. Preparation for Swimming Instruction and Supervision.

e. Preparation for Athletic Coaching.

f. Preparation for Camp Leadership.

g. Preparation for Boys' Club Work.

2. Put your Service Training into operation in a given group to the satisfaction of your *Leader*.

VI. CHOOSING A LIFE WORK

Are you determined to make a life, or are you going to be perfectly satisfied with making a living? Are you going to "invest" your life, or are you going to keep it and just eke out an existence? Vast numbers of folks never *live* at all; they merely exist. If you were like the proverbial old cat and had nine lives, you might feel that you could afford to experiment with two or three of them, but you are not like her at all. *You* have but one life. What are you going to do with it? Your decision is of the utmost importance. "Happy is the man that has found *his* work in the world." The world is full of round men in square jobs and of square men in round jobs. One of the tragedies of life is the army of misfits: doctors who ought to have been merchants; merchants who ought to have been farmers; farmers who ought to have been preachers; preachers who ought to have been advertisers, and so on. Every man is better fitted to do certain kinds of work than others—that is, in all probability, he will accomplish more in a given time with a given amount of energy in a given direction than he would in some other direction.

This matter of choosing a life work is peculiarly important to the boy who has already left school and is out in the great maze of the world's work, trying to find his place. One of the first principles he should recognize is that any person's vocation has two functions—first, one's daily work is the means by which he earns his living and this is very important for his own sake and that of certain other people. The Bible itself makes a strong state-

ment on this matter: "But if any provideth not for his own, and especially his own household, he hath denied the faith and is worse than an unbeliever" (1 Tim. 5:8). No man wants to be dependent on others, and he has a right to want to make a reasonable income.

But one's vocation is also the method by which he makes his particular contribution to the work of the world, that great mass of labor which must be performed every day in the year, if houses are to be built, food produced, transportation systems maintained, clothing prepared, and the young taught. Any person who is protected by clothing and shelter and partakes of food, owes to the world his share of the labor necessary to produce these things.

With these two great motives in mind, any boy may well study most carefully to discover what are his capacities and interests. Most boys discover on careful study that they have what may be called *main lines* of ability and interest. Each will have also one or two side lines. It is, of course, extremely important to earn one's living and make his contribution to the world's work through one's main line rather than a side line, just as in an athletic meet a boy enters that event or those events in which he has outstanding ability. Some of the most unfortunate people we know are those who are trying to earn their living in a kind of work which should have been distinctly a side line in their lives. Many a boy would be happier and earn more money working at a mechanical trade and playing in the village band or orchestra than by trying to earn his living in a musical occupation. His musical ability is just enough to give himself and his friends pleasure and just limited enough to make him a failure as a professional musician. This is a serious matter for the boy himself, his parents, and his leaders, but when a boy attacks this problem intelligently with the help of modern science, he makes a reasonably certain decision as to what his life work ought to be. Both the boy in school and the employed boy must face this question; one may have a little more time than the other to consider, but both should learn early to locate what is referred to elsewhere in this test as his *vocational tendency*. Having done that, the selection of the exact occupation is not a particularly difficult task.

CHOOSING A LIFE WORK .....Total Credits—100

REQUIRED TEST—Maximum of Credits—50

Make a list of twenty vocations; talk with representatives of ten of these about their life work and describe to the group the two that interest you most.

ELECTIVE TESTS

FIRST YEAR'S CHOICES—10 credits each up to 50.

1. Attend educational talk or discussion or read a book on: Principles in Choosing a Life Work.
2. Make a list of ten trades and five professions and know what each involves.
3. Read any standard book on vocational guidance such as are listed on page 317 of this handbook.
4. Carry through to completion to the satisfaction of the *Leader*, any one of the projects promoted by the Government through its Agricultural Club Movement.
5. Read pamphlet, "Where Will You Be Ten Years from Today?" Association Press, 10 cents; or its equivalent.
6. Fill out a "Self-Analysis Blank" and determine your vocational direction. (Secure from your denominational house, or Association Press, 347 Madison Avenue, New York City.)
7. Talk with four men, each representing one of the trades or professions in which you are most interested, as to the advantages and disadvantages of their respective life-callings, also the opportunity each offers for real service.

SECOND YEAR'S CHOICES—10 credits each up to 50

1. Attend an educational talk or a discussion or read a book on What Constitutes a Christian Calling.
2. Read "Profitable Vocations for Boys," Weaver, Chapters 2 to 6.
3. Carry through to completion to the satisfaction of the *Leader*, any one of the projects promoted by the Government through its Agricultural Club Movement.
4. Fill out a "Christian Callings Self-Analysis Blank" and determine your vocational direction. (Secure from your denominational house, or Association Press, 347 Madison Avenue, New York City.)

5. Talk with four men, each representing one of the trades or professions in which you are most interested, as to the advantages and disadvantages of their respective life-callings, also the opportunity each offers for real service.

6. Attend a Life-Work Conference as promoted by the Young Men's Christian Association or a church denominational board.

THIRD YEAR'S CHOICES—10 credits each up to 50

1. Attend an educational talk or a discussion, or read a book on The Constant Need for Educational and Religious Leadership.

2. Carry through to completion to the satisfaction of the *Leader*, any one of the projects promoted by the Government through its Agricultural Club Movement.

3. Attend a discussion on the subject, How Can a Boy Determine in which of the Main Branches of Human Effort He has the Most Ability (Humanic—Literary—Commercial—Managerial—Scientific—Mechanical—Artistic)?

4. In ten minutes tell what vocation you are planning to enter and why.

5. Use Self-Analysis Blank as directed by *Leader* or, if self-analysis has been made previously, check up with vocational specialist on previous analysis and present progress in vocational choice and education.

VII. WORLD BROTHERHOOD

"I will place no value on anything I have or may possess except in relation to the Kingdom of Christ. If anything will advance the interests of that Kingdom it shall be given away or kept, only as by the giving or keeping of it I shall most promote the glory of Him to whom I owe all my hopes in time and eternity." So wrote one of the greatest of the world's heroes—David Livingstone. Little did David Livingstone suppose that, in less than one hundred years after he gave himself to Africa, Africa, the Dark Continent, would be giving herself in a world war, allied with other nations in upholding against autocracy the very principles for which Livingstone gave his life.

First, the world became a neighborhood as explorers and missionaries and merchants and travelers went farther and farther into the dark, out-of-the-way places, taking with them the story of modern science and Jesus' way of living. All the races of the world have now mixed until today the world is a growing brotherhood. America, especially, has become a great melting-pot of races and offers special opportunity for learning our real brotherhood.

Some one has said that if you wish to read the history of the human family, you must read great biographies. The progress of mankind can best be traced through a study of the lives of its leaders. We all have a hero; we admire tremendously the man who accomplishes great things—whether it be the building of a mighty ship, the manufacture of an intricate, delicately adjusted instrument, the relieving of human suffering, the elevating of a nation's ideals, or the caring for the world's poor and neglected. In all the realms of achievement there have been no greater contributions made to the Kingdom of God on earth than have been made by the scores of outstanding missionary heroes. They have been the advance guard of civilization. They have made possible the present world outlook. What a pity, then, for a boy to grow up and not know in a personal, intimate way the lives and achievements of these men.

WORLD BROTHERHOOD.....Total Credits—100

REQUIRED TEST—Maximum of Credits—60

Name all the various races of people that are now so largely represented in America and suggest to the group definite ways in which our relations to them will more quickly bring about a more perfect world brotherhood.

Take a course of study in the church school or elsewhere covering home and foreign missions and contribute regularly to some specific cause directly connected with the missionary enterprise.

ELECTIVE TESTS—20 credits each up to 40

1. Discuss before the group how Christianity compares with other movements working for world brotherhood.

2. Discuss before the group which would bring world brotherhood about more quickly: a world-wide acceptance of

the Sermon on the Mount as a basis for personal behavior, or an operative League of Nations.

3. Discuss or read and report on the topic: Is Bolshevism an Ally or an Enemy to World Brotherhood?

VIII. PERSONALITY ANALYSIS

At this point we will conclude the Personality Analysis. Grade yourself carefully on the following abstract headings:

Are you keen to serve your fellowmen in whatever way presents itself? Do you volunteer or do you have to be drafted into volunteer service of all kinds? Are you loyal to the best you know, loyal to yourself, your folks, your God? Are you growing in genuine friendliness? Do you play a team game? Do you actually assume responsibility? Are you growing in your appreciation of what real democracy is? Are you more democratic than you were a year ago?

These are fundamental questions that are worth thinking about and checking yourself up on.

PERSONALITY ANALYSIS.....Total Credits—100

REQUIRED TEST

1. Be awarded a maximum of 50 credits for right attitude toward securing for yourself a social and service development.

2. Be awarded a maximum of 50 credits for the following service personality analysis:

To what extent have you developed in:

a. Loyalty (to ideals, friends, school, group, city, and nation).

b. True sociability.

c. Self-sacrifice and service.

d. Discharging responsibility.

e. Essential democracy.

Note. 10 credits each allowed for excellent development, 7 for good, and 3 for fair.

CHAPTER VI

THE SERVICE RECOGNITIONS

Service is the very heart of our Program. It is the keystone in the arch of worth-while living. Every boy should form the habit of unselfish service to others. A boy may be unusually bright mentally; may have a splendid physical development; may attend public worship, church school, and all those things; may even be considered thrifty and broad-minded and yet not be intelligently interested in serving others. With this in mind and with the firm conviction that a very large percentage of boys may easily be led into forming service habits, the Service Recognitions are given a very important place in this Program.

Service tasks, especially as they apply to boys, group themselves pretty well into six classes: service rendered to individuals (*Personal Service*), service rendered to the home and the home folks (*Home Service*), service rendered to the church and its organizations (*Church Service*), service rendered to the school or place of employment (*School* or *Employment Service*), service rendered to general groups or to the municipality (*Community Service*), service rendered to your personal group or club or class (*Group Service*). A great many service tasks, practical for all sorts of boys, are here classified under each heading. In some cases it may be necessary for the *Leader* to arrange even more choices in order to meet the requirements of his particular locality. If this should be the case, great care should be taken to supply tests of equal value to the ones offered here.

For each one of these rather clearly defined groups of service a *Service Recognition* numeral is offered. (See chapter on Insignia p. 413.) This recognition should be worn in the vacant square provided in the very center of the insignia, but must not be worn until the requirements of at least one of the types of service have been fully met. It should be clearly understood that this addition to the insignia is *not* a *reward* for service rendered, but a *recognition* of service rendered. The boy or group which is not vitally interested in rendering service must

wear a blank square at the heart of the emblem. The numera. worn indicates the total number of types of service renderedl For instance, if the boy has rendered all the required service under head of *Home Service* and *Service to the Group* he is entitled to wear the numeral 2. If he should render all the required service suggested under all the headings, he would be entitled to wear the numeral 6.

In the case of *group insignia* the numerals used will be the sum total of all the individual Service Recognition numerals of all the members of the group. These might total twenty-one or seventy-five, according to the size of the group and the emphasis that is placed on *service.*

1. Personal Service

(Choice, three out of five)

Give satisfactory evidence that you have

a. Rendered ten hours of personal service to sick, lame, blind, or to small children not in your own family without receiving pay for same.

b. Rendered acknowledged personal service in accident, fire, wreck, runaway, or panic.

c. Returned lost article to rightful owner.

d. Personally helped auto driver, teamster, or pedestrian in any sort of trouble on the road, street, or in the country.

e. Contributed from your funds at least one dollar to help some unfortunate individual personally known to you, or aided some unfortunate in securing work, clothes, or food.

2. Home Service

(Choice, three out of five)

Give satisfactory evidence that you have

a. Rendered ten hours of special home service in putting in coal, wood, picking fruit, canning fruit or vegetables, house-cleaning, painting, or remodeling other than prescribed by regular tests, without pay.

b. Cared for younger brothers or sisters eighteen hours during absence or sickness of parents other than prescribed by regular tests.

c. Aided in the support of the home from your own earnings (spirit of the test to be honestly observed).

d. Kept your own room or shop clean and in order for a six months' period or its equivalent.

e. Aided in some humble home duty at least once a day for six months' period, or aided with washing once a week for a like period ; or

Watered lawn and garden daily, except Sundays, for three months' period ; or

Produced for the home in a year, twenty pounds of wild food, such as fish, game, berries, or wild fruit.

3. Church Service

(Choice, three out of five)

Give satisfactory evidence that you have

a. Been a regular contributor to the support of your church, or its equivalent, to the satisfaction of your *Leader*.

b. Delivered church calendars or notices or collection envelopes, involving fifteen hours of service.

c. Acted as librarian, secretary's assistant, usher, etc., for period of six months, involving at least fifteen hours of service ; or

Beautified church building by planting trees, shrubs, vines, or flowers, involving at least fifteen hours of service; or

Accomplished special piece of service for the church as prescribed by the *Leader* or Pastor or church official, involving at least fifteen hours of service.

d. Aided the church in distributing food, clothes, or creature comforts to poor at Thanksgiving, Christmas, or other occasions.

e. Volunteered some definite service to the Pastor not above classified, involving eight hours' work.

4. School or Employment Service

(Choice, three out of five)

Give satisfactory evidence that you have

a. Done special task, not included in your regular work for your school or employer, such as, aided new pupil or

employe, represented school or firm in entertainment or captained athletic team.

b. Won special recognition for work unusually well done at school or for employer (application left to *Leader*).

c. Made three constructive suggestions for the betterment of school or office, either in favor of other scholars or employes or for general efficiency of school, office, or plant, at least one of these to be accepted and acted upon.

d. Rendered first aid worthy of recognition to fellow-student or employe.

e. Been sent as delegate representing your school or firm at conference called on some welfare move involving your associates, such as Safety First, or War Relief.

f. Made arrangement for and carried through placing of approved educational exhibit (Health, Thrift, Physical Fitness, Vocational) at school or place of employment.

5. Community Service

(Choice, three out of five)

Give satisfactory evidence that you have

a. Taken active part in some community-wide campaign, such as clean-up, fly extermination, or community gardens.

b. Ushered at some public gathering, helped patrol streets on parade days, played in band or orchestra on public occasions, or equivalent; or

Actively helped protect and provide for birds or become Government Bird Observer; or

Reported at least two instances of dirty lots, alleys, garbage cans, broken culverts, bridges, or washed-out highways to proper authorities.

c. Done special piece of service for the community not before reported, sanctioned by the *Leader*, such as Junior Police, turning in fire alarm, cutting weeds on vacant lots or along roads, etc.

d. Assisted in local elections; or

Circulated petitions to the public for some communit improvement; or

Aided in moral improvement campaigns, such as thrift, dry fight, or tobacco legislation.

e. Contributed from your earnings to some community campaign for funds to relieve want and suffering.

6. Service to the Group

(Choice, three out of five)

Give satisfactory evidence that you have

a. Been elected to office for six months, such as class or group office.

b. Captained or managed a group team in athletics or swimming.

c. Secured five new members for the group.

d. Provided equipment—books, charts, furniture, rugs, pictures—for club or classroom.

e. Made possible some special occasion for the group (eats or drinks not to count), such as, a trip, special guest, uniforms, equipment, or books.

7. Saving Human Life

Any Comrade who saves a human life from water, fire, or accident may be awarded the Life Saving *Recognition*. Certain required evidence must be supplied to secure this honor.

CHAPTER VII

AMERICANS ALL

THEODORE ROOSEVELT

Every boy has an ideal, but no man of our country ever lived who so completely came up to the ideals of the American boy as Theodore Roosevelt. Why? Because he did so many things well and was so thoroughly American. The moving picture has given the American boy an ideal in "The Fighting Roosevelt." He had to fight in order to reach physical, intellectual, devotional, and service standards. As a boy he was puny and sickly; but with indomitable determination he transformed his feeble body not merely into a strong one, but into one of the strongest. This physical feebleness caused in him nervousness and self-distrust. He set himself to change his character, as he changed his body, and to make himself a man of self-confidence and courage. When he entered public life he did not possess the gifts of a debater or public speaker, but he determined to overcome these handicaps. As a result, few men have been able to influence an audience with such appealing power as Roosevelt.

He came of one of the oldest Dutch-American families. In his veins were mingled Irish, Scotch, and Huguenot blood. His father was a man who did things. In the Civil War he organized a number of New York regiments and was one of the leaders in organizing the Sanitary Commission and other work for the soldiers. His father's spirit of service had a great influence upon his son. Theodore Roosevelt was born in New York City October 27, 1858. He was graduated from Harvard in 1880. He then took up the study of law, but did not continue it long. He entered politics and at the age of twenty-three was elected to the New York State Legislature. Within a year he was the

Republican leader in the lower house, because of his fighting qualities. He thus plunged at once as a young man into that field of activity which he never afterwards forsook—politics. In accepting a position of public trust, he was never governed by the money or power which it afforded. The determining factor was, what are the opportunities for rendering genuine service?

When poor health sent him West to throw in his lot with the rough and ready cowboys, the ranchers were disposed at first to laugh at the "four-eyed dude," but they changed their opinion when they found that no work was too hard for him, no hardship too severe, no peril too great. The story is told of a round-up in which Roosevelt participated. There was a cow with a new-born calf. The cowboys were not going to bother about the calf, but drive its mother to the round-up. Out of the bigness of his heart, he picked up the calf when it got stuck in the mud, put it in front of his saddle, and rode off, driving its mother ahead of him with the rest of the cattle.

One of the great qualities of Roosevelt was his courage. Once when he arrived in the Rocky Mountains to hunt grizzly bears, the toughs of the regions declared their intention of "doing him up." One of them went so far as to send a message to Roosevelt, to the effect that if he proceeded to track grizzlies there would be shooting. Roosevelt inquired where this person with the propensity for shooting lived and rode at once into his camp. The man, however, had forgotten by this time why he wanted to shoot. This incident put an end to treating Roosevelt as a tenderfoot. Before the hunting campaign was ended, he had won the respect of all, and, when the time came, many of those who had been ready to "do him up" as a tenderfoot were among the most eager to follow him as "Rough Riders" into the jungles of Cuba for service to their country. As Police and Civil Service Commissioner for New York City, as Governor of New York, and as President of the United States, he was absolutely fearless.

No man ever lived who loved hard work more than Roosevelt. But he loved to play hard as well. His love of work and play led him into many fields of activities and scientific investigation. He won a high place as a hunter, sportsman, explorer, historian, essayist, scientist, critic, editor, reformer, and statesman. When he wished to rest from political and governmental responsibilities,

he would go on a hunting trip into the wilds of America or even take an extended tour of exploration to Africa or South America. Theodore Roosevelt showed in what he did, said, and lived, that a real American is a man who works and serves. He has taught the American boy how to think and act for himself and yet serve others.

In his book entitled "The Great Adventure," he tells the American boy some of the secrets of his life. "The boy can best become a good man by being a good boy—not a goody-goody boy, but just a plain good boy. The best boys I know—the best men I know—are good at their studies or their business, fearless and stalwart, hated and feared by all that is wicked and depraved, incapable of submitting to wrong-doing and equally incapable of being aught but tender to the weak and helpless. He cannot do good work, if he is not strong and does not try with his whole heart and soul to count in any contest; and his strength will be a curse to himself and to everyone else, if he does not have thorough command over himself and over his own evil passions, and if he does not use his strength on the side of decency, justice, and fair dealing. In short, in life, as in a football game, the principle to follow is: 'Hit the line hard; don't foul and don't shirk, but hit the line hard!'"

One of the greatest tributes paid to Roosevelt was given by the pastor of the church which he joined as a boy: "I like to think of Mr. Roosevelt as a religious man, a man who made room in his life for God. He was a Christian gentleman. He was a member of the church and always attended church services. He accepted the Bible and made room in his busy life for Jesus Christ."

JACOB RIIS

Denmark was the birthplace of Jacob Riis. The life of this boy was marked by bold decisions and impulsive deeds, revealing the fighting spirit of his Viking ancestors. While a carpenter's apprentice in his middle teens, he fell in love and, as he never did things by halves, fell in completely. But the boy apparently threw his last chance away, when, as chairman of a social affair, he ordered the young lady's father from the floor. Soon after this event he left for Copenhagen, where he spent four years

completing his apprenticeship. The problems of city life were to be hereafter his chief concern, although he was destined to probe them at the cost of much suffering. At nineteen he returned to his native town determined to know his fate. The young lady and her father were cold, but the mother secretly gave him a gold locket in which was a wisp of one of Elizabeth's curls.

With the locket and her picture, his most treasured possessions, young Riis sailed for America, landing in New York early in 1870. He had two immediate resources—some knowledge of English and a capital of forty dollars. His money soon disappeared, especially as he spent one-half of it for a big navy revolver. He must have presented a funny sight on lower Broadway, but New Yorkers who were un-American enough to ridicule and the friendly policeman who advised disarmament little suspected that within a generation this immigrant boy would become a great constructive force in the affairs of the city.

The years that followed tested every physical and moral quality. Penniless, friendless, and wet to the skin, a stormy night found him down on the dock. Months had passed without word from Elizabeth. Three thousand miles of water lay between them, and the dark river ran below. "Would any one know—would any one care if he did know?" and he edged a little nearer to the perilous edge. A movement at his side revealed the shivering form of a yellow dog, seeking a friend. Young Riis always had a great love for animals. Together the friendly outcasts fought their way against the storm to the lodging house connected with the Church Street Police Station. That night Jacob was robbed of his treasured locket. He made a complaint to the Sergeant, who proceeded to kick the boy and his four-footed friend out into the night and the rain. The son of the Vikings put up a furious but vain resistance. The dog rushed to his aid but was killed by the burly Sergeant, who dashed him against the stone steps of the Police Station. That night planted the seeds of a new purpose in the heart of Jacob Riis—seeds which bore their fruit years later when by his efforts the police lodging houses, breeding-places of vice and crime, were wiped out.

Another critical period when despair threatened came after an unsuccessful attempt to sell a book—appropriately called "Hard

Times." Jacob and his faithful friend—this time a great Newfoundland dog—were sitting dejectedly on the steps of Cooper Institute where they were found by a former acquaintance. Through his interest, the young book agent was helped to find a position as a reporter.

Out of his lodging-house experiences and his failure as a book agent came two great calls in life—social reform and newspaper work. Nevertheless, more than that occurred the day when Jacob Riis became a cub reporter. Later he wrote: "What had happened had stirred me profoundly. For the second time I saw a Hand held out to save me from wreck just when it seemed inevitable; and I knew it for His hand to whose will I was just beginning to bow. . . . In the shadow of Grace Church I bowed my head against the granite wall of the great tower and prayed for strength to do the work I had so long and arduously sought and which had now come to me." To Jacob Riis religion was a reality. In discussing prayer as a help in his work, he said: "If I were to find that I could not do that (pray) I should decline to go into the fight, or if I had to, I should feel that I were to be justly beaten."

Energy and character brought results to the young reporter. A daring decision made him the owner of a small newspaper. Then came the never-despaired-of letter from Elizabeth, in which she confessed that she loved him. A fortunate sale of the paper furnished the funds for the trip to Denmark, to claim his bride and bring her to America.

Covering the police-court news around gang-infested Mulberry Bend was not a "ladies' game." There were times when the life of Jacob Riis hung on a hair, but he would not quit. His pen, reenforced by the strong right arm of Theodore Roosevelt, President of the Police Board, provided the pitiless publicity needed to kill the old lodging-house system. Working together these two men, so much alike in many ways, entered into a personal friendship which all the strenuous years that followed deepened and enriched. The fight to cut through Mulberry Bend, tear down its tenements, and substitute a life-giving park for this breeding-place of death by disease and violence was a harder matter. At last Jacob Riis was privileged to see green grass and groups of dancing children, where had been bands of

desperate criminals. The very hallways in Henry Street where a young Danish immigrant used to get a free night's lodging—unless the police found him—are now full of boys and girls who are finding inspiration and guidance at the Jacob Riis House, a settlement founded by the King's Daughters.

A few years before his death he paid a visit to his native land. He was summoned to Copenhagen to dine at the palace, where King Christian decorated Jacob Riis, "America's Most Useful Citizen," with the ancient Cross of the Crusaders. But these two men were not meeting for the first time.

Years before, Jacob Riis, the carpenter's apprentice boy, had arranged to meet his older brother at the art-gallery housed in a wing of the palace. The simple country lad, with three days' experience in Copenhagen, asked directions of a friendly man. On the way to the gallery his guide started a friendly conversation in which the boy frankly expressed his opinions, as a sixteen-year-old boy quite naturally will at times. Great was the astonishment and embarrassment of Jacob Riis when his brother informed him that his guide had been the king! However, King Christian also made a mistake that day, for he did not recognize in the boy at his side the future brilliant reporter, the crusader of the slums, and Denmark's best gift to America.

The Cross of the Crusaders came years later, but all the elements of greatness were in the boy carpenter who met the king. Suffering and endurance developed and demonstrated his qualities and the decision in the shadow of Grace Church dedicated them and all that they might grow to be to the service of others. In that decision and dedication lies the secret of the career of Jacob Riis.

HORACE TRACY PITKIN

Few people are called upon in these days actually to lay down their lives as martyrs to the cause of Christ. Such, however, was the supreme sacrifice made by Horace Tracy Pitkin, Yale '92. Pitkin was anything but the wide-brimmed-hat, be-spectacled, umbrella-carrying, Bible-under-the-arm sort of missionary. He was one of the thousands of strong, virile, alert, consecrated Christian statesmen, who are continually going to the ends of the earth to aid in bringing into being an era of Christianized social

relationships. The missionaries of today are preachers, yes, because only through the lips and the life lived can the Good News of a Kingdom of brotherly men be made known. But they are more than preachers—they are Christian social engineers—and such was Pitkin.

As a lad Pitkin's ambition was to make electricity and its application to the needs of the times, his life-work. He no doubt would have made a great success in it, as he had unusual abilities in that direction. But his uncle turned his thoughts toward the ministry and after long and serious questioning and much prayer, he decided to renounce his chosen ambition and enter Christ's service. He began at once to prepare for his life-work. At the age of fifteen he entered Phillips Academy, Exeter, and from the beginning took his stand as a Christian. He became a power among his associates as a Christian leader. With the introduction of the Christian Endeavor movement into his church, Pitkin became its first president. He also took part in the school athletics and was a social leader.

At the age of eighteen, and with this same vision of service to his fellows, and his ability as a leader, he entered Yale. He carried with him an enthusiasm, optimism, and spirit of good cheer which drew strong friends to him. He was no one-sided Christian. He wrote for the college papers and was a good student, missing the Phi Beta Kappa stand by only a small margin. He excelled in tennis and took an active interest in football and rowing. His musical ability was a great joy to himself and his friends. He was a member of the University Glee Club. So proverbial was his success in overcoming difficulties, that "If anybody kin, Pit kin" became a current pun among his friends. At the Northfield student conference at the end of his Freshman year he made his decision to enter the Student Volunteer Movement. Three years at Union Seminary, after graduating from Yale, and one year as a traveling secretary for the Student Volunteer Movement completed his preparations.

He offered himself to the American Board of Commissioners for Foreign Missions and in May, 1897, he reached Tientsin, China; by September he and his wife were settled in their own station at Paotingfu. In the summer of 1900 came the Boxer uprising. Determined to stamp out completely the foreign

devils and to exterminate their religion and converts, the Boxers soon surrounded Paotingfu. In June they killed the missionaries in the China Inland and Presbyterian missions. On July 1st they advanced to attack the Congregational compound. Pitkin and two lady missionaries were the only ones remaining. The Boxer hordes surrounded the little group. It was entirely one-sided, and Pitkin fell defending the two ladies, who were then taken into a temple and murdered. A man, unusual only in his quiet service and splendid devotion to Christ and his fellowmen, Horace Tracy Pitkin still lives, challenging every red-blooded youth to face squarely the call of the ungrasped opportunities for Christian statesmanship in the awakening East.

ROBERT E. LEE

He came of fighting stock—this Robert E. Lee—this man beloved alike by North and South, revered for his sterling Christian character, respected for his brilliant generalship, and admired for his wonderful loyalty and patriotism. His father was the famous "Light Horse Harry" Lee of Revolutionary War fame, and his forefathers fought with Richard Coeur de Lion, known through story and song to every boy.

Virginia claims him as her own, since he was born in Westmoreland County, Virginia, January 19, 1807. The great manor-house, Stratford, with its legends and histories dating back to the time when the Queen of England helped by her gifts in building it, the great trees, the open country, the endless plantations, all helped to give him a love for home; for the great out-of-doors; for Nature and God. The responsibility for the care of his invalid mother fostered those great and gentle qualities in him which made him the idol of his soldiers, who gladly endured all the hardships of war because of their loyalty to his leadership.

Admitted to West Point at eighteen, he proved that success is possible by application and study. This great military school cherishes among its traditions the fact that his record there was nearly perfect in every respect. He was soon to need all the military knowledge he had gained. He was engaged in engineering work when the Mexican War broke out and his country called him. As Captain of the Engineers, he was assigned the hazardous task of "mapping" the Mexican country for the advancing

American Army. He participated in the fall of Vera Cruz and assisted materially in the victory. Following the close of this war he returned to West Point as Superintendent of the Academy, but his love for active military life led him to Texas as the leader of a body of troops against the Indians. He succeeded to the entire satisfaction of his superior officers.

Then came the great war of the sixties. When Virginia cast her lot with the South, Robert E. Lee decided that his place was with his native State, despite his former connection with the United States Government. It was a hard decision, but he made it unflinchingly. Colonel Lee served first as the Commander of the Virginia Forces; then, upon the organization of the Confederate War Department, he was made Military Adviser to President Davis. He led the campaign against the Federal forces in West Virginia and also directed the construction of the famous coast defenses in Georgia and the Carolinas. He commanded in the Peninsular Campaign and throughout the balance of the war. General Lee's famous stand with ragged, half-starved, yet undaunted men against a superior number of well-equipped troops is an achievement which has gone down in military history, and his final surrender, when he saw that further fighting was useless, in order to save the lives of hundreds of his men, is another example of his great heart.

The five years following the close of the war were given to his country with the same unswerving loyalty with which he had served his State. Forgetting the past, he threw himself into the problems of his beloved Southland, brought about by after-the-war difficulties, and accepted the Presidency of Washington College at Lexington, Virginia, because he felt that the greatest service he could render his nation would be the training in leadership of the choice young men of the South.

While actively engaged in his great reconstruction labors, he died, October 12, 1870.

Ranking as a soldier with warriors such as Napoleon and Wellington; fearless as his noble forefathers; comparable to a little child in gentleness and courtesy; imbued with the spirit of the Master; loving the great out of doors and embracing all the qualities of leadership and manhood, General Robert E. Lee

stood as a man four-square. His life challenges the young manhood of America to greater and nobler living.

HERBERT ROSWELL BATES

Among the immigrant people of New York's lower West Side and the equally mixed but entirely different population of the great university on Morningside Heights, Herbert Roswell Bates was completely at home. A personal acquaintance with this friendly-spirited man was a rare privilege. Into forty-three years he crowded a lifetime of Christian service. For several generations the Bates family had produced physicians. High school life seemed to strengthen Herbert's ambition to follow the family profession. But when he was eighteen his mother expressed her hope that he might enter the ministry. The same night his mother suddenly died. From that time the boy's road took a new turn.

Those who knew Herbert Roswell Bates as a man find it easy to imagine the attitude of "Herb" Bates, the high school boy, to a Hi-Y Club with its program for high standards of Christian character, if there had been such a movement at that time. As a matter of fact, for a year after he finished high school he took up teaching and became an enthusiastic leader of the young people of his school and community in "creating, maintaining, and extending" such standards.

Entering Hamilton, he soon took his place in the life of the college. He was generally popular because of his splendid social spirit, but he never fell into the class of college men described by Ketcham as "prominent enough to be popular but not positive enough to be powerful." His friends were stunned one day to learn that Bates had been suspended under charge of theft. Refusing to go back on a fellow-student who had come to him for help, Roswell Bates remained silent under the accusation and left college in disgrace. Worn out and seriously ill from the strain, he maintained his position. Fortunately the facts were finally made clear and Roswell Bates returned to college more popular and more influential than ever.

The Negro church of the college town was split by a quarrel. This college man solved the problem by taking the pastorate. He threw himself into the leadership of these simple colored people

with such unselfish devotion that he brought the factions together and greatly built up the church. In his visits to the homes of his peculiar parish, Roswell Bates must have determined the special path his later ministry was to take. When he had completed his seminary course he took up work on New York's crowded East Side. His greatest service, however, was rendered at Spring Street Church. Almost every form of Christian social service found expression at Spring Street Church under his inspiring direction. He not only knew the problems of his people—he could make others appreciate them. He preached Christianity and he lived it. Consequently, he was in great demand as a speaker to college men. He never stopped with an address, but was forever finding the chance to deal with fellows one at a time. As a result, he has left his successors by the score—boys and men whom he won and trained for Christian service.

His enthusiasm was unlimited, but his labors were too heavy. He could not rest, with so much pressing to be done. Too late he was persuaded to take a sea trip to South America, and he consented on the ground that he would have opportunity to visit some of the mission stations. In the summer of 1913, while in Cuzco, Peru, Herbert Roswell Bates was suddenly taken away. As high school boy, college man, and Christian minister his life was joyous, rich, and convincing.

BOOKER T. WASHINGTON

Every American boy likes to read the lives of America's great men. Of these none is more thrilling than those of Washington and the log cabin presidents. Certainly no less interesting in his life and no less remarkable in his achievements was Booker T. Washington, the greatest southern Negro. He ranks first among the great men of the world who have risen highest above their circumstances.

He was born in a slave cabin, and inherited the handicaps of color, poverty, and prejudice. While he never knew exactly the year of his birth, or who his father was, his recollections of his boyhood days as a slave and his experience during the Civil War are most vivid. So far as the record goes, he was born in Franklin County, Virginia, in 1858 or 1859. He did not even have a name until he named himself. His early training as a

slave and a Negro could not smother those qualities of character which have placed his name high in the hall of fame.

His experience in sleeping on the floor and enduring the hardships of a Negro boy of his day gave him determination. Over and over again in his autobiography, "Up From Slavery," he says: "I was determined to succeed!" "I would not be discouraged!" He came early to desire an education. The successive steps from learning his figures written on the salt barrels where his father worked, through his experience with a "Blue Back Speller," his evening study alone, his long journey to Hampton, and many other stages in his securing an education are full of thrill. His ambition in this line is the more remarkable when one considers that it was so rare for a boy of his race. His greatest encouragement came from his mother and his teachers, whose affections he always won. His examination for college entrance at Hampton Institute was to sweep and dust a class room. This he did in his characteristic, conscientious, and thorough manner and won for himself a place in the school. His life was so ordered by a guiding Hand that all his experience gradually prepared him for the work he was to do in the uplift of his own race. He never despised small things, whether it was the scant opportunity to realize his ambitions for an education, the six eggs donated towards helping him build a college, or the chicken house in which he started Tuskegee Institute.

While his early life centers about his experience as a slave boy and the process by which freedom came to him, and his middle life about his struggle for an education and the heroic price he paid, his later life is the history of the call to the leadership of Tuskegee and its marvelous development. Many temptations came to him to go into politics, but his great conviction that he must serve his race held him true to his chosen cause.

The spirit of his life is its most charming trait. He lived to serve. He never held any bitterness against his owners, as a slave, or against the white people or the system. He rose above narrowness and prejudice.

His winning spirit is best illustrated by a story he tells himself. In his haste to make a train after an evening engagement, he asked a white cabman to carry him to his train. The man re-

plied, "I wouldn't haul a nigger." Booker T. immediately said, "Well, you ride in the cab and I will drive you."

After constant work at Tuskegee for eighteen years, he and his wife were given a trip to Europe by women of Boston. On this journey the famous Americans were many times honored. They took well with Queen Victoria, dined with royalty of England, and were called upon to speak and be present at many auspicious gatherings. But the greatest surprise that ever came to Booker T. Washington was the honorary degree conferred on him by Harvard University, a degree from the oldest and most renowned university in America. Tears came into his eyes when he was informed of this, the greatest honor that ever came to him. His whole life rose up before him—his struggles as a slave and as a coal miner, the time when he was without food and clothing and when he made his bed under a sidewalk, his struggles for an education, the trying days at Tuskegee when he did not know where to turn for a dollar to continue the work—all this passed before him and made his honor seem more dazzling and unreal.

His life from beginning to end is a continuous story of adventure on new paths for men of his race. His book, "Up From Slavery" ranks among the most fascinating biographies and is read by people of many nations.

CHAPTER VIII

KEEPING FIT[1]

During the War all the fighting nations learned the supreme value of man-power. Idlers were put to work and every possible method was adopted which would help to bring each worker up to top-notch efficiency.

The years just ahead will make demands no less severe on the nation's manhood. Work at full capacity and top speed in factory, mine, farm, and railroad will be needed to replenish the world's depleted store of material goods. Clear brains, keen intelligence, and physical endurance will be required for the manifold scientific, professional, constructive, and humane tasks that face us. Each individual member of the coming generation of America's young men is the more valuable and responsible because so many of his older brothers the world over are missing.

Fitness—physical, mental, and moral—depends fundamentally on health. This means not only the avoidance of diseases and defects, but positive, abundant health—prime condition of mind and body. Every young man in America, to be worthy of the heritage left him by the heroes of the battlefield, should know the laws of physical and mental efficiency and live up to them. Keeping fit for America's task in the new world is the present obligation on every youth of the land.

Training Rules

To be really physically fit, however, it is not enough to be free from disabling defects. Many men were rejected from the Army simply because of "poor physique." You must be in good general condition all the time if you want to win out, whether in war or in peace.

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[1]Adapted and used by permission from pamphlet, "Keeping Fit," published by The United States Public Health Service.

To achieve the maximum of physical and mental efficiency you must follow five common-sense rules.

1. The first of these is sufficient exercise of the right kind. Reading the sporting page, yelling in the grandstand, and watching the baseball bulletin boards may be enjoyable, but will

never make a man vigorous. He must himself take daily exercise. Hiking, baseball, rowing and canoeing, skating in the open air, swimming, tennis, team games, general gymnasium work, boxing and wrestling where the air is fresh, are among the most beneficial forms of exercise. Any useful work employing the big muscles actively is as good as sports.

Your daily exercise should be vigorous enough to cause you to perspire freely. This helps the body to throw off certain waste products which, if they are allowed to accumulate, will act as poisons. After exercising, take a bath. A shower is better than a tub bath. A washbowl or any other contrivance is better than nothing. Warm water should be used first, then cold. The bath should be followed by a vigorous rubdown with a coarse towel, the whole process taking no longer than four or five minutes. The bath and rubdown should produce a healthy glow of the body and a general feeling of well-being.

2. Second, sleep in the fresh air, work and exercise in the fresh air as much as possible, and be sure to have the indoor air kept fresh during the day. Fresh air is almost a cure-all. It is usually more valuable than any quantity of medicine.

3. In the third place, you probably need at least eight hours' sleep every night. A man can get along on less, but he cannot keep himself in the best possible physical and mental condition. Do not lie in bed after waking, but jump out, bathe, and dress immediately. Avoid soft mattresses, feather beds, and too much covering.

4. Proper food is another requirement. The system needs not only the kind of food that is rich in nourishment, but vegetables and other coarser food to give bulk and stimulate the bowels. When this is not secured, one becomes constipated and is likely to have headaches and general ill health. Regular movements of the bowels are aided by an abundance of exercise and by eating plenty of fruit and drinking plenty of pure water.

5. Finally, if you are to gain maximum efficiency and retain it, it is important that you should understand the relationship of the reproductive, or sex organs, to the development of vigor. This needs to be carefully explained because, while the facts are important, they are not generally understood.

Sex Health

Sex accounts for the differences and attractions in mind as well as in body between men and women. The ways a person behaves in relation to such matters are called his sex habits. A man's sex habits have much to do with his health and efficiency.

Most men have received their first information about sex from lies, half-truths, and smutty stories, from pictures or shows, or from other boys or men who thought they knew it all, but had only filthy ideas about sex, and laughed at it. Most people were never told in a serious way by their parents or by a doctor what maturity, marriage, and having children really mean.

All that is best in modern life and civilization has grown mainly out of the sex impulses. Hunger and sex are the two great driving forces in the world. The hunger motives have given rise to our economic or self-seeking life; the sex or love motives have given rise to the spiritual and social aspects of life,

aspects which find their highest satisfaction in the happiness and service of others. Human affection, which is the finest and often the most powerful motive in life, is the highest product of sex in the world. That is why the defiling of the affections so completely destroys character and manhood. With sex destroyed or debauched we should lose nearly all that is beautiful in art, poetry, music, and literature—for courtship, marriage, fatherhood, motherhood, birth, true family life, and all our most generous impulses are due to sex.

It would not be possible for a boy to achieve the full vigor of manhood were it not for the reproductive or sex organs. This fact may be made clear by referring to the activity of the various glands in the body. Everyone is probably acquainted with the salivary glands, and the glands in the stomach which secrete the gastric juice. There are also glands which make secretions that are absorbed by the blood. One of these glands is called the thyroid. If a boy were seriously injured so as to necessitate the removal of the thyroid gland it would probably retard the development of his brain.

The testicles are glands which, like the thyroid glands, secrete an exceedingly important substance. The blood absorbs this substance, or secretion, and carries it all through the body. It gives tone to the muscles, power to the brain, and strength to the nerves. It is what caused your voice to change, your shoulders to square out, your beard to start growing. It literally makes a man out of you.

For the above reasons it is of paramount importance to a man's efficiency and happiness that his sex organs be kept healthy. For this, physical cleanliness is the first essential.

Inside the body, near the bladder, are certain small glands which, when a boy reaches the age of fifteen, sixteen, or seventeen (though it may be earlier or later) become filled with a fluid occasionally discharged in the night. This discharge is called a seminal or nocturnal emission, or "wet dream." It is a perfectly healthy experience. It may come two, three, or four times a month, or only once in two or three months. To prevent too frequent emissions, it is well not to lie on the back when sleeping, or to drink much water late in the evening. If you keep yourself clean in mind and body, however, and ordinarily feel

no ill effects after natural emissions, you need not and should not worry.

Some ignorant men or quack doctors may tell you that the sex organs must be used if they are to be kept healthy. *This is a lie.* Manhood is not lost by disuse of the sex organs. Real lost manhood is usually due to venereal disease or long abuse of the sex organs.

Famous boxers and wrestlers, explorers, and athletes who want their bodies in perfect condition for a great struggle, keep away from women as part of their training. Even the ancients recognized this in training their gladiators and athletes, and reputable doctors agree that sex indulgence is not necessary to health.

Handicaps Revealed by War

The examination of men for our armies revealed the causes which produced the greatest number of physical "ineffectives" and rejections. Aside from wounds, the principal causes were defective eyesight, poor teeth, bad feet, and venereal disease.

The facts here presented are aimed to reduce inefficiency from these four causes. The self-discipline and healthy activities required to prevent these diseases and defects will be found to be the means also of abundant health, vigor, and general well-being.

Defective Eyes. The human eye is one of the most marvelous and delicate mechanisms known and, next to the vital organs, the most important part of the body. Yet most of us abuse our eyes unmercifully.

Close your eyes and for a half minute imagine yourself blind. In warfare false eyesight is almost as useless as blindness. The most frequent kinds of poor eyesight causing rejection from the Army were near and far sightedness and astigmatism. The same conditions, of course, handicap a man almost as much in civilian life.

Certain defects in the original structure of the eye itself cannot be cured, and can only be corrected by glasses properly fitted by a competent oculist. Certain other defects, due to mistreatment of the eyes, can be cured by proper glasses which, so to speak, "train" the eye back to normal. Some kinds of defects, such as certain cases of "cross-eyes" may be helped by a slight operation.

Slight muscular defects often cause severe eye-strain without the patient's knowing what is wrong.

Still other eye troubles affect chiefly the lids, or attack the lids first and only later affect the eyesight itself. Proper medical treatment will usually cure these conditions. Certain infected cases, however, may leave permanent scars.

Varieties of eye trouble are so numerous that they cannot be described here, nor would it be wise for you to try to treat yourself, for the symptoms of very different complaints are often so nearly alike—headache, redness, dimness, etc.—that only a physician can prescribe properly. For any continued discomfort go to a reliable eye specialist.

It is unwise to ask an optician to prescribe for eye defects. An optician is, or should be, merely one who makes the glasses ordered by the physician, and it is no safer to go directly to the optician than it would be to go to a druggist for surgical treatment.

It is possible, however, for you to know how to avoid preventable eye trouble. Many a man's career has been handicapped because he neglected these apparently simple rules:

1. When reading, writing, or using the eyes closely in any way, be sure to have good, clear light, preferably over the left shoulder if writing, and not directly in the eyes or reflected sharply from the paper.

2. Do not hold the eyes less than twelve inches from your work.

3. Do not use the eyes too long continuously—rest them a few minutes occasionally by closing them or looking into the distance to relax them. One should do this at least every hour, especially if reading fine type or doing intense, delicate work.

4. Do not use your eyes much on a vibrating train or car, or go too often to motion pictures. They strain the eyes.

5. Keep away from places where stone chips, sparks, or emery dust is flying, or wear goggles.

6. If strong light bothers you, wear slightly brown non-magnifying glasses outdoors, with a broad-brimmed hat.

7. Avoid the common towel and do not rub the eyes with dirty hands. Contagious eye disease is spread in these two ways.

Defective Teeth. It should hardly be necessary, in this day, to emphasize the importance of clean teeth. Bad teeth are not only the producers of toothache, but also harborers of disease germs. The mouth is the gateway to the throat and stomach, and it pays to keep it clean. Poisons absorbed from diseased teeth may cause intense suffering and loss of health.

The correct way to brush teeth is with a medium soft brush, with an up-and-down stroke, bearing away from the gums toward the points of the teeth, so as to get the food from between the teeth without violently pushing back the gums.

Even if you keep the teeth properly cleaned daily, it pays to have them examined and cleaned by a good dentist once in six months, to prevent decay and avoid disease.

Defective Feet. In battle an army gets from where it is to where it is going on feet. A good general takes almost as much care for his men's feet and stomachs as he does for their powder and shot.

Men were not rejected for corns and bunions, unless they interfered with wearing a military shoe, or with weight-carrying power; but they are a nuisance, and they can be avoided by having properly fitted shoes, snug but not pressing or stubbing the joints or toes. The Army "last" is a safe and good-looking shoe.

Cleanliness is of the utmost importance in keeping the feet in condition. Unless this is attended to systematically, the skin becomes softened and irritated by cast-off particles of skin, dirt, and perspiration; hence blisters and abrasions are more likely to form.

The most frequent foot trouble, serious enough to cause rejection and real handicap, was the fallen arch, or "flat foot." This may be prevented by wearing shoes which do not put too heavy a strain on the "arch" of the foot, but give it mild support. Many things besides shoes may cause flat foot, and a doctor should always be consulted for any continuous foot discomfort. Foot-strain is also a cause of some kinds of backache and other nervous trouble.

The straight position of the foot—that is, with the feet parallel—is the proper one for both standing and walking.

If a shoe threatens to injure your foot, it is poor economy to keep it. Don't buy a misfit just because it is cheap or fashionable—it doesn't pay. Remember the doctor's bills!

Venereal Diseases. In former wars germ diseases killed more soldiers than bullets, but such diseases as smallpox, yellow fever, and typhoid were successfully controlled in the Great War.

Of all the diseases that handicap men in the Army, in agriculture, mining, lumbering, and shipbuilding, the venereal diseases (syphilis, gonorrhea, and chancroid) cause the greatest loss of time, money, and efficiency, besides untold misery. Surgeon-General Gorgas said that if it were possible to get rid of all wounds or of all venereal disease he would rather be rid of the venereal cases.

If Germany had hired an army of spies to scatter disease germs among our soldiers and thus to keep them from the front, the nation would have wrathfully protested. If an American general had permitted infected persons to mix freely with our soldiers, he would, in effect, have been aiding the enemy. Venereal diseases are as bad as smallpox and almost as "catching." Yet every day many men and boys are exposing themselves to venereal diseases, largely through ignorance of the laws of health and lack of self-control. False modesty has caused silence about venereal diseases because they are usually caught from immoral relations with women and girls who, in turn, have caught one or the other of the diseases from some man.

Practically all prostitutes, and girls and women who may not be professional prostitutes but who permit men to have sexual relations with them, have one or more of these venereal diseases. Many such women are feeble-minded. They are to be pitied and avoided.

Here are a few more facts about venereal diseases which you should know for the protection of yourself and others:

1. Gonorrhea (sometimes vulgarly called "clap" or "a dose") can be cured, if promptly and thoroughly treated, without apparent loss of health, but it always has serious possibilities. In many cases it causes chronic pain and distress in the sexual organs, with severe mental depression. It may lead to conditions which cause loss of health or even death; in many cases it injures sexual power and fertility, and it occasionally cripples a man for

life (gonorrheal rheumatism). The loss of health, time, and money caused by these sequels and their treatment may far exceed that caused by the original disease, which is in itself bad enough.

The widespread notion among the uninformed that gonorrhea is a mere annoyance, "no worse than a cold," is based entirely upon lamentable ignorance. It is absolutely false.

2. This disease sometimes persists in the deeper parts long after it is apparently cured. It thus happens that a man may give the disease without knowing it to his wife, who thereupon enters upon a period of ill health that may end in an operation involving the mutilation of her sexual organs in order to save her life, or perhaps actually killing her. Much of the surgery performed on the reproductive organs of women is made necessary by gonorrhea contracted from the husband. Often such women can never have children. Should the wife while infected with this disease give birth to a child, the baby's eyes may be attacked by gonorrhea germs and blindness may result.

3. The other serious venereal disease, syphilis, infects the blood and therewith all parts of the body. For months after infection with this disease, a person may communicate it even by personal contact, such as by kissing; and articles touched by his saliva or sores—towels, drinking glasses, pipes, etc.—may sometimes carry the infection to others. Although the disease, under proper treatment, is not dangerous to life in the earlier years of its progress, the possibilities of transmitting it should forbid the marriage of the person until a competent physician has certified to his freedom from disease.

4. The most serious results of syphilis may appear years after its beginnings, when the individual has been lulled into a false sense of security by long freedom from its manifestations, and considers himself cured. It may attack any organ of the body. Among the diseased conditions produced in various cases are apoplexy,[1] paralysis,[2] insanity,[3] and locomotor ataxia,[4] and these

[1] Apoplexy refers to sudden paralysis and deep stupor caused by bleeding into the brain or spinal cord.

[2] Paralysis means a loss of motion or sensation in some part of the body.

[3] Insanity means disorder of the mind, more or less permanent, but without loss of consciousness or will.

[4] Locomotor ataxia means failure of muscular control and other changes due to degeneration of certain parts of the spinal cord and nerves.

often appear after the man has a family dependent upon him for support.

5. The injury to the individual caused by syphilis is shown in the attitude of the leading insurance companies toward those so infected—a purely business matter, devoid of all sentimental considerations. They refuse to insure the life of a syphilitic person for four or five years after the disease has been contracted, and then only upon special terms; for their records prove that syphilis tends to shorten life, and that the death rate for those who have had syphilis is double the rate for those who have never contracted it.

6. That the syphilitic parent may transmit the disease to his offspring is common knowledge; some of his children may be destroyed by the disease before birth; others may be born to a brief and sickly span of life; others attain maturity seriously handicapped by a burden of ill health, incapacity, and misery produced by the inherited taint; others escape these evil effects.

7. The above facts show why a father has a right and duty to demand a health certificate from any man who asks for his daughter in marriage.

8. The only safe way to avoid venereal diseases is to keep away from prostitutes and loose girls. Between syphilis and gonorrhea, choose neither.

9. If a man contracts gonorrhea or syphilis he will save money and time by consulting a competent physician as soon as symptoms of the infection appear. Medical institutes and quack doctors are far more interested in your pocketbook than in your health. To rely on drug store remedies for self-treatment is equally dangerous. They do not eradicate the infection, and it should always be remembered that merely covering up a disease does not cure it. A complete cure is never effected until the system has been entirely freed of the infection. Otherwise it may smoulder and break out years later. In many cases attempted self-treatment permits the infection to secure such a hold on the system that a cure becomes impossible. The sufferer's condition eventually drives him to a reputable physician, only to find that he has come too late. For the individual to rely on drug store remedies or quack doctors is to gamble his whole future, with the odds all against him.

10. Do not be fooled by "quacks" and "medical institutes." In many cities these unscrupulous quacks advertise to cure "lost manhood," "nervous debility," "spermatorrhea," "pimples," and things which have nothing to do with sexual health. They try to frighten the ignorant into paying large sums of money for the "cure" of diseases which do not exist, and the lies they disseminate help to spread venereal diseases. They have been actually run out of some parts of the country.

Control and Conservation of Manhood

Over-exercise or excitement of the sex glands may exhaust them and weaken a man. If a boy or man himself stimulates his sex organs it is called "self-abuse" or "masturbation." This practice does not make a man insane, but it is so weakening both to the body and to the will power that many boys and men worry themselves sick over the habit. If a man or boy who abuses himself stops immediately, once and for always, nature comes to his rescue and aids him in recovering self-respect, courage, and vigor of mind and body. If you are tempted to abuse yourself, or have acquired the habit, you can cure yourself by athletics, fun, and your own self-respect and will power. Most boys who masturbate stop the habit before lasting injury has been done. Going to a prostitute instead does not really break the habit. It makes matters worse. Needless to say, neither kind of habit helps to make strong men.

Thinking about or looking at things which excite the sex feelings makes it difficult to control the sex organs, just as looking at food makes the mouth water, or thinking of a sorrow may bring tears to the eyes. Liquor makes it easy to lose control of the thoughts and hard to resist temptation, and it makes the body more liable to disease. That is one reason why the Government prohibits liquor to soldiers. While it is not always possible to prevent these things from coming to your attention, it is possible, by using will power, to direct the attention away from these harmful influences and center it on wholesome subjects. You can learn the trick of switching the thoughts away quickly from suggestive subjects to athletics, school work, or some "hobby" or other. A man who is "thinking below the belt"

cannot be 100 per cent efficient. The mind should not be made a cesspool, but a reservoir which is not to be contaminated.

The sex instinct may be either a destroying scourge or a great blessing. If it be abused, inefficiency and suffering may result for the man and his wife and children. If it be understood and controlled, it is a source of strength and of richer and fuller life.

The nature of the sex instinct may be understood by comparing it with other forces of nature. Fire is a great blessing to mankind. By means of it machinery is made to perform gigantic tasks. It warms our houses and cooks our food. The warmth and glow of a camp fire is a source of great pleasure to campers. When fire is controlled it is a valuable aid to man, but when it gets beyond control it may cause ruin.

The water above a dam becomes a source of power when directed into the turbines which run dynamos. If it be merely held back by the dam, it may accumulate and cause a break, resulting in a flood. To be useful it must not only be held back, it must also be directed into the turbines. So sex energy must be controlled and directed. In entering into manhood you may need the full power of your will to keep your sex desires from leading you into practices that weaken and destroy yourself and others. But you will be helped most by cultivating healthful sex interests and turning your powers of mind and body into athletics, work, study, art, music, religion—any constructive social activity. A man thoroughly absorbed in work for others or in training for a career of community usefulness has no time or desire to bother with smut or vice.

Relationships with Girls

Think of all girls as the future mothers of the race, and understand that one of their most important functions in life is to become the mothers of healthy children who will make useful citizens. A nation as well as a man may well be judged by its attitude toward women.

The man who is fair will treat every girl as he expects others to treat his own sister. There is no finer thing than the friendship of a true girl and a true man.

The man who seeks wine and loose women is taking a big chance. Far from being strong, he is weak. The man who does

so, needlessly exposes to danger the body and mind. He is disloyal to his own best self.

In an accident at sea, when everyone is anxious to reach the lifeboats, the rule for all men is, "women and children first." If a man rushes in ahead of them, he is looked upon as a coward. It is even more important for men to protect girls and women from other dangers, especially from those dangers which threaten to ruin their lives. We fought to preserve our homes from autocracy and rapine. Let us see to it they are protected also from internal enemies of disease and disgrace. If we were ready to die to protect our homes, we should surely live in such a way as to safeguard them.

Every man who has any principle believes in fair play. He despises cheating. If you are for the "square deal," you will adopt for your own life the same standard you expect of the woman you are to marry some day. The chain of human beings reaches into the infinite past and forward into the infinite future. But one false step may infect your own racial stock and blight the lives of generations to come, or even cut you off entirely from your share of posterity. If a man keeps his body in good condition and lives a clean life, his descendants will thank him for a vigorous and untainted heritage. The spark of life is to be accepted as a sacred trust to be transmitted undimmed to future generations.

1. This information alone is not always sufficient to make and keep you physically fit. There are, however, some powerful reasons, and the strongest motives in the world, why you should struggle as hard as you are able to keep clean in every way and to build yourself up. Here are some of the reasons:

a. Your success in athletics in school and college depends upon all-round physical vigor and the best habits. (Many illustrations can be given from trainers, arctic explorers, soldiers, and others.)

b. Your future position in life demands it. The high speed work in the professional and business life of today makes even slightly impaired health a handicap. Men with biggest tasks take great care to keep in fine physical condition, for example, Woodrow Wilson. Since so many of the world's young men are missing, the young men of this generation in the United States are to be called on for the biggest tasks in history, here and abroad: in

industry, medicine, law, public health work, agricultural development, education, and so many difficult, humane tasks. Only health and vigor above anything yet attained can cope with these demands.

c. Your father and mother, who count on you so much for their happiness, care more than anything else that you keep physically free from disease and morally pure.

d. The girl you marry and the children you may have some day, depend for their happiness and health on your keeping absolutely clean and free from exposure to disease.

e. Your nation demands men physically clean and fit. The War revealed the dangers of physical inability and the handicap that it meant to a fighting and working force. The tasks of peace require health and vigor no less. The Government is asking the boys of this generation to set a high standard for American manhood.

2. The men in the American armies during the war were trained to live clean. This gave us the cleanest army in the world. Now the Government and people have set before themselves the task of building up the cleanest, most vigorous, and the healthiest nation in the world. This is what American ideals and standards have come to mean in Europe. Will you do your part to build up this next generation of clean manhood?

3. The older boy whose life is dominated by Christian motives will quickly see that impurity of thought or act is not consistent with Christian ideals. To keep clean in mind and body will be the only course that will square with the ideals associated with Christian development.

CHAPTER IX

TRACK AND FIELD ATHLETICS

SECTION 1. BASIS OF GRADING FOR ATHLETIC EVENTS
SECTION 2. RULES FOR CONDUCT OF ATHLETIC EVENTS
SECTION 3. SCORING TABLES
SECTION 4. SUGGESTIONS FOR BOYS' ATHLETIC MEET
SECTION 5. ATHLETIC RECORDS
SECTION 6. CHRISTIAN ATHLETES

SECTION 1

Basis of Grading for Athletic Events

The weight classification has been chosen for the athletic events of this program because it is the most simple, conforms to existing efficiency tests, and is most practical for the *Leader* The following is the weight classification:

Class I.	60 to 80 lbs. inclusive	80 lb. class.
Class II.	81 to 95 lbs. inclusive	95 lb. class.
Class III.	96 to 110 lbs. inclusive	110 lb. class.
Class IV.	111 to 125 lbs. inclusive	125 lb. class.
Class V.	18 years and under Weight unlimited	unlimited class.

In rare instances there are boys who are handicapped by a straight weight classification. For instance, a boy twelve years old weighing 120 lbs. would be outclassed in the 125 lb. class. There are a few boys who are given an undue advantage. A boy seventeen years old weighing 100 lbs. would outclass any boy of fourteen or fifteen in the 110 lb. class. In competition with other groups, the straight weight classification should be followed, but in competition within the group the *Leader*, with the consent of the group, could make exceptions of these boys

and grade them accordingly to the following averages and classifications:

A summary study of the average weight of 67,987 boys in the United States gives the following results for the varying ages:

12 years— 69.8 lbs.	15 years— 91.4 lbs.
13 years— 75.2 lbs.	16 years—111.9 lbs.
14 years— 82.3 lbs.	

These averages, applied, result in the following age and weight classification which may be used:

Class I.	Boys 12 years, irrespective of weight. Boys 13 years, under 81 lbs.
Class II.	Boys 13 years, 81 lbs. and over. Boys 14 and 15 years, under 96 lbs.
Class III.	Boys 14 and 15 years, 96 lbs. and over. Boys 16 and 17 years, under 111 lbs.
Class IV.	Boys 16 and 17 years, 111 lbs. and over.
Class V.	Boys 18 years, irrespective of weight.

Athletic Events Summary

Class I 60 to 80 lbs. inclusive 80 lb. Class	*Class II* 81 to 95 lbs. inclusive 95 lb. Class
1. One Lap Potato Race	1. One Lap Potato Race
* 2. Three Lap Potato Race	* 2. Four Lap Potato Race
3. 50 Yard Dash	3. 75 Yard Dash
* 4. 75 Yard Dash	* 4. 100 Yard Dash
5. Standing Broad Jump	5. Standing Broad Jump
* 6. Pull Up—Four Times	* 6. Pull Up—Five Times
* 7. Running High Jump	* 7. Running High Jump
8. Running Broad Jump	8. Running Broad Jump
* 9. One Day Hike— Eight Miles	* 9. One Day Hike— Ten Miles
*10 Century Hike— 100 Miles in a year	*10 Century Hike— 100 Miles in a year
11 Baseball Throw	11 Baseball Throw
Each event counts a maximum of	20 points
Total, 10 events,	200 points

The six starred events are required. Participants may pick four of the remaining five to make ten events.

Class III
96 to 110 lbs. inclusive
110 lb. Class

1. Two Lap Potato Race
* 2. Five Lap Potato Race
3. 75 Yard Dash
* 4. 100 Yard Dash
5. Standing Broad Jump
* 6. Pull Up—Six Times
* 7. Running High Jump
8. Running Broad Jump
* 9. One Day Hike—
Twelve Miles
*10. Century Hike—
100 Miles in 6 Mos.
11. Baseball Throw for
Distance
12. Shot Put

Class IV
111 to 125 lbs. inclusive
125 lb. Class

1. Two Lap Potato Race
* 2. Six Lap Potato Race
3. 100 Yard Dash
* 4. 220 Yard Dash
5. Standing Broad Jump
* 6. Pull Up—Seven Times
* 7. Running High Jump
8. Running Broad Jump
* 9. One Day Hike—
Fourteen Miles
*10. Century Hike—
100 Miles in 6 Mos.
11. Baseball Throw for
Distance
12. Shot Put

Class V
Weight unlimited
18 years and under
Unlimited Class

1. Three Lap Potato Race
* 2. Six Lap Potato Race
3. 100 Yard Dash
* 4. 220 Yard Dash
5. Standing Broad Jump
* 6. Pull Up—Eight Times
* 7. Running High Jump
8. Running Broad Jump
* 9. One Day Hike
Eighteen Miles
*10. Century Hike
100 Miles in 6 Mos.
11. Baseball Throw for Distance
12. Shot Put

Each event counts a maximum of	20 points
Total, 10 events,	200 points

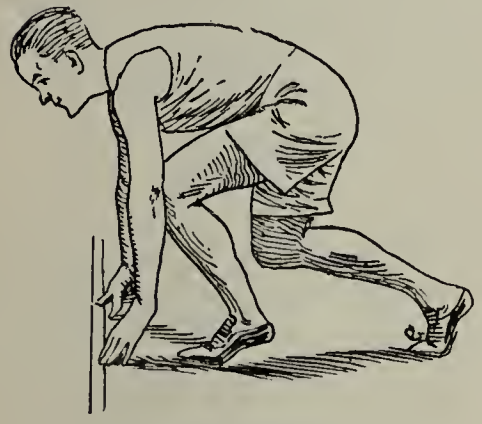
The six starred events are required. Participants may pick four of the remaining six to make ten.

SECTION 2

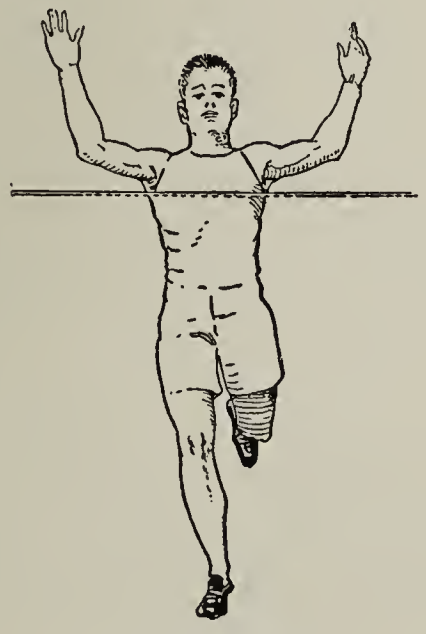
Rules for Conduct of Athletic Events

Potato Race

1. This race is run around boxes four inches deep, placed upon stands two feet high, whose base shall not measure more than 12 inches square. They shall be placed upon the floor 31 feet apart at their outside edges. The boxes shall not be loaded or fastened in any way to the floor. The base of the box is placed in the center of a sixteen-inch square (outside measurement), marked on the floor. When competition is within the group, a chair with tin pail makes a very good box and stand; in inter-group competition standard boxes should be used. The runner shall start with one potato in his hand on a line with the outside edge of the box in which are placed the other potatoes. He shall circle outside the boxes, transferring one potato each for each lap into the other box and finish across the starting line. If a runner knocks over a box or moves a box so that any part of the base projects beyond the square marked on the floor, he shall be disqualified, but he may be given one other trial by the judges. No rubber or mats of any similar material shall be placed on the floor, but the use of resin will be allowed.



Sprint—Start



Sprint—Finish

Sprints

2. *The Distance* should be accurately measured with a cotton or steel measuring tape. If there are only one or two stop-watches, each boy should run alone. It will help the boy who is being tested if one or more boys run with him as "pace makers."

The Start is of great importance. The "crouching" position is the most popular. The front foot is placed about six inches behind the line; the rear foot is placed so that when kneeling the knee is opposite the instep of the front foot. Small holes are made in which the feet are placed. When the starter says, "Get on the mark," the boy kneels on the knee of his rear leg and places his hands on the line. At the command, "Get set," this knee is raised slightly and the body is pushed foward a little, the boy being on the alert for the report of the pistol or the word, "Go." A pistol with blank cartridges or a toy pistol is much better than saying "Go" as it makes it easier for the timers as well as for the boy.

The Timers are those who take the time of the runners. Stop-watches should be used, as it is impossible to time accurately with ordinary watches. The watches should be accurate and tested by a jeweler so that they are regulated alike. The timers stand at the finish line and start their watches when they hear the pistol or the word, "Go," and stop them when the boy whom they are timing crosses the finish line. It is an aid to both runners and timers to stretch a piece of yarn across the finish line just where the boys will be able to break it with their chests. Two watches should be used for a boy running alone or for the first boy when more than one is running. If there is a difference between the time of the two watches the slower time is recorded. Each boy will be allowed to run but once, unless the person in charge allows a second trial on account of the boy's tripping or falling or for some unavoidable cause. Considerable experience is necessary to time accurately.

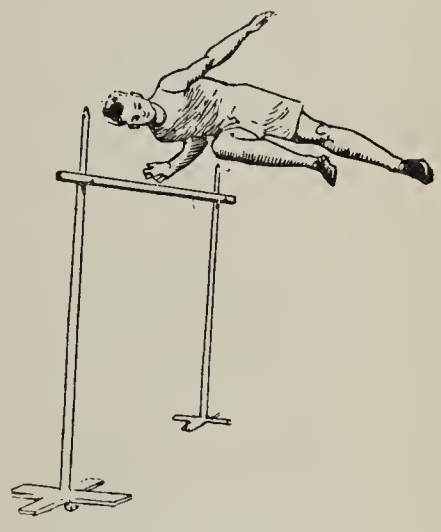
Standing Broad Jump

3. A piece of wood eight inches wide is sunk level with the ground. This is called the "take-off." A line may be made on the ground where a board is not used. The boy stands on the board so that his toes are just even with the edge. With clenched fist he swings his arms forward and backward and jumps so that he

lands on both feet. If he steps over the edge of the board it is a foul and counts as one trial. The jump is measured by placing the free end of the tape at the edge of the board and measuring to the nearest mark on the ground made by *any part* of the boy. If a boy falls or steps backward, the distance measured is not where his feet landed, but where he made a mark when he fell or slipped back. Care should be taken to have the tape at right angles to the board. Each boy should have three trials and the best shall be the one recorded.

Running High Jump

4. For this event two uprights, two pins, and a cross-stick or bar are required. The uprights may be made of two-by-three-inch sticks, six feet in length. Beginning two feet above the ground, holes are bored one inch apart. The uprights should be placed on the ground nine to twelve feet apart. The cross-stick or bar should be one inch square and ten to fourteen feet in length. A rope cannot be used instead of a cross-stick. A bamboo fishing-rod is often used for the cross-stick. This bar rests on five-inch pins or wire nails, which project not more than three inches from the uprights. The ground is dug up and leveled off where the boys will land.



Running High Jump

The bar is placed at the lower limit of the weight class and is raised one inch at a time. Each boy is allowed three jumps at each successive height, and takes his jump in turn. Those who fail on their first trial take their second trial in turn and those who fail on their second trial take their third in their proper order. When a boy fails on this third trial at any height, he is declared out of the test and is given credit for the last height which he cleared. Knocking down the bar is counted as a trial. Running under the bar is a "balk." Three balks are counted as one trial. The boy may run any distance and from any direction before making his jump.

The height of each jump is measured by holding the free end of the tape so that it just touches the ground directly beneath the center of the bar and reading the height on the upper side of the bar or stick. Care should be taken to see that the ground is perfectly level and that the tape is held vertical.

Running Broad Jump

5. For this event it is very important to have the take-off board sunk level with the ground, so that it is very firm. The boy may run any distance, starting slowly and gradually increasing his speed, and judging his distance so that he will jump from the take-off board with one foot and land on the ground on both feet. If the boy's foot goes beyond the edge of the take-off board it is a foul, and counts as one trial. Each boy has three trials and the best jump is recorded.

The ground should be dug up and leveled off so that the boys will not injure themselves when landing. The ground should be smoothed over after each jump. The measurement is made in the same way as for the Standing Broad Jump.

Putting the Shot

6. The shot is a metal ball, a stone, or a bag filled with shot weighing exactly eight pounds. It can be made by melting some old lead in a cup and trimming it so that it is as round as possible. It is "put" with one hand and in doing so, the shot must be above and not behind the shoulders. It must not be a throw. A "put" is made from a circle seven feet in diameter. The circle is marked on the ground and is divided into halves by a line drawn through the center. In the middle of the circumference on the front half is placed a curved stop-board, four feet long, four inches high, and fixed in place by means of pins fastening it to the ground. In making a "put," the feet of a boy may rest against but not on top of this board.

A fair "put" is one in which no part of the boy touches the top of the stop-board, the circle, or the ground outside of the circle and the boy leaves the circle by its rear half, which is the half directly opposite the stop-board. A "put" shall be a foul if any part of the boy touches the ground outside the front half

of the circle before the "put" is measured. The measurement is made from the inner edge of the stop-board to the nearest mark on the ground made by the shot. Each boy is allowed three trials in turn and the best "put" is recorded.

Throwing for Distance

7. This event may be conducted on the road or in a field. The starting line is made on the ground. Another line is made fifteen feet back of the starting line. In making his throw, the boy starts at the back line and runs to the starting line. If he goes over the starting line, it is a foul and counts as a trial.

Each boy is allowed three trials in turn, and the best throw is recorded. Only the regulation baseball that weighs five ounces and is nine inches in circumference is used for the test. The measure is taken from the starting line to the nearest mark on the ground.

SECTION 3

Scoring Tables

Class I. 60–80 Lb. Class

Pts.	One Lap Potato Race	Three Lap Potato Race	50 Yard Dash	75 Yard Dash	Pts.
	sec. fifths	sec. fifths	sec. fifths	sec. fifths	
20	4.3	16.3	6.3	10.2	20
19	4.4	16.4	6.4	10.3	19
18	5.0	17.0	7.0	10.4	18
17	5.1	17.1	7.1	11.0	17
16	5.2	17.2	7.2	11.1	16
15	5.3	17.3	7.3	11.2	15
14	5.4	17.4	7.4	11.3	14
13	6.0	18.0	8.0	11.4	13
12	6.1	18.1	8.1	12.0	12
11	6.2	18.2	8.2	12.1	11
10	6.3	18.3	8.3	12.2	10
9	6.4	18.4	8.4	12.3	9
8	7.0	19.0	9.0	12.4	8
7	7.1	19.1	9.1	13.0	7
6	7.2	19.2	9.2	13.1	6
5	7.3	19.3	9.3	13.2	5
4	7.4	19.4	9.4	13.3	4
3	8.0	20.0	10.0	13.4	3
2	8.1	20.1	10.1	14.0	2
1	8.2	20.2	10.2	14.1	1
0	8.3	20.3	10.3	14.2	0

Scoring Tables

Class I. 60–80 Lb. Class (Continued)

Pts.	Standing Broad Jump	Running High Jump	Running Broad Jump	Baseball Throw	Pts.
	ft. in.	ft. in.	ft. in.	ft.	
20	7.1	4.1½	14.2	130	20
19	6.11¾	4.0¼	13.9	127½	19
18	6.10½	3.11	13.4	125	18
17	6.9¼	3.9¾	12.11	122½	17
16	6.8	3.8½	12.6	120	16
15	6.6¾	3.7¼	12.1	117½	15
14	6.5½	3.6	11.8	115	14
13	6.4¼	3.4¾	11.3	112½	13
12	6.3	3.3½	10.10	110	12
11	6.1¾	3.2¼	10.5	107½	11
10	6.0½	3.1	10.0	105	10
9	5.11¼	2.11¾	9.7	102½	9
8	5.10	2.10½	9.2	100	8
7	5.8¾	2.9¼	8.9	97½	7
6	5.7½	2.8	8.4	95	6
5	5.6¼	2.6¾	7.11	92½	5
4	5.5	2.5½	7.6	90	4
3	5.3¾	2.4¼	7.1	87½	3
2	5.2½	2.3	6.8	85	2
1	5.1¼	2.1¾	6.3	82½	1
0	5.0	2 0½	5.10	80	0

Scoring Tables

Class II. 95 Lb. Class

Pts.	One Lap Potato Race	Four Lap Potato Race	75 Yard Dash	100 Yard Dash	Pts.
	sec. fifths	sec. fifths	sec. fifths	sec. fifths	
20	4.0	22.0	9.4	12.1	20
19	4.1	22.1	10.0	12.2	19
18	4.2	22.2	10.1	12.3	18
17	4.3	22.3	10.2	12.4	17
16	4.4	22.4	10.3	13.0	16
15	5.0	23.0	10.4	13.1	15
14	5.1	23.1	11.0	13.2	14
13	5.2	23.2	11.1	13.3	13
12	5.3	23.3	11.2	13.4	12
11	5.4	23.4	11.3	14.0	11
10	6.0	24.0	11.4	14.1	10
9	6.1	24.1	12.0	14.2	9
8	6.2	24.2	12.1	14.3	8
7	6.3	24.3	12.2	14.4	7
6	6.4	24.4	12.3	15.0	6
5	7.0	25.0	12.4	15.1	5
4	7.1	25.1	13.0	15.2	4
3	7.2	25.2	13.1	15.3	3
2	7.3	25.3	13.2	15.4	2
1	7.4	25.4	13.3	16.0	1
0	8.0	26.0	13.4	16.1	0

Scoring Tables

Class II. 95 Lb. Class (Continued)

Pts.	Standing Broad Jump	Running High Jump	Running Broad Jump	Baseball Throw	Pts.
	ft. in.	ft. in.	ft. in.	ft.	
20	7.7½	4.5½	15.2	154	20
19	7.6¼	4.4¼	14.9	151½	19
18	7.5	4.3	14.4	149	18
17	7.3¾	4.1¾	13.11	146½	17
16	7.2½	4.0½	13.6	144	16
15	7.1¼	3.11¼	13.1	141½	15
14	7.0	3.10	12.8	139	14
13	6.10¾	3.8¾	12.3	136½	13
12	6.9½	3.7½	11.10	134	12
11	6.8¼	3.6¼	11.5	131½	11
10	6.7	3.5	11.0	129	10
9	6.5¾	3.3¾	10.7	126½	9
8	6.4½	3.2½	10.2	124	8
7	6.3¼	3.1¼	9.9	121½	7
6	6.2	3.0	9.4	119	6
5	6.0¾	2.10¾	8.11	116½	5
4	5.11½	2.9½	8.6	114	4
3	5.10¼	2.8¼	8.1	111½	3
2	5.9	2.7	7.8	109	2
1	5.7¾	2.5¾	7.3	106½	1
0	5.6½	2.4½	6.10	104	0

Scoring Tables

Class III. 110 Lb. Class

Pts.	Two Lap Potato Race	Five Lap Potato Race	75 Yard Dash	100 Yard Dash	Pts.
	sec. fifths	sec. fifths	sec. fifths	sec. fifths	
20	9.3	27.0	9.3	12.0	20
19	9.4		9.4	12.1	19
18	10.0	28.0	10.0	12.2	18
17	10.1		10.1	12.3	17
16	10.2	29.0	10.2	12.4	16
15	10.3		10.3	13.0	15
14	10.4	30.0	10.4	13.1	14
13	11.0		11.0	13.2	13
12	11.1	31.0	11.1	13.3	12
11	11.2		11.2	13.4	11
10	11.3	32.0	11.3	14.0	10
9	11.4		11.4	14.1	9
8	12.0	33.0	12.0	14.2	8
7	12.1		12.1	14.3	7
6	12.2	34.0	12.2	14.4	6
5	12.3		12.3	15.0	5
4	12.4	35.0	12.4	15.1	4
3	13.0		13.0	15.2	3
2	13.1	36.0	13.1	15.3	2
1	13.2		13.2	15.4	1
0	13.3	37.0	13.3	16.0	0

Scoring Tables

Class III. 110 Lb. Class (Continued)

Pts.	Standing Broad Jump	Running High Jump	Running Broad Jump	Baseball Throw	Shot Put	Pts.
	ft. in.	ft. in.	ft. in.	ft.	ft.	
20	8.0	4.7½	16.2	178	34	20
19	7.10¾	4.6¼	15.9	175½	33	19
18	7.9½	4.5	15.4	173	32	18
17	7.8¼	4.3¾	14.11	170½	31	17
16	7.7	4.2½	14.6	168	30	16
15	7.5¾	4.1¼	14.1	165½	29	15
14	7.4½	4.0	13.8	163	28	14
13	7.3¼	3.10¾	13.3	160½	27	13
12	7.2	3.9½	12.10	158	26	12
11	7.0¾	3.8¼	12.5	155½	25	11
10	6.11½	3.7	12.0	153	24	10
9	6.10¼	3.5¾	11.7	150½	23	9
8	6.9	3.4½	11.2	148	22	8
7	6.7¾	3.3¼	10.9	145½	21	7
6	6.6½	3.2	10.4	143	20	6
5	6.5¼	3.0¾	9.11	140½	19	5
4	6.4	2.11½	9.6	138	18	4
3	6.2¾	2.10¼	9.1	135½	17	3
2	6.1½	2.9	8.8	133	16	2
1	6.0¼	2.7¾	8.3	130½	15	1
0	5.11	2.6½	7.10	128	14	0

Scoring Tables

Class IV. 125 Lb. Class

Pts.	Two Lap Potato Race	Six Lap Potato Race	100 Yard Dash	220 Yard Dash	Pts.
	sec. fifths	sec.	sec. fifths	sec. fifths	
20	9.2	33	11.2	28.0	20
19	9.3		11.3	28.2	19
18	9.4	34	11.4	28.4	18
17	10.0		12.0	29.1	17
16	10.1	35	12.1	29.3	16
15	10.2		12.2	30.0	15
14	10.3	36	12.3	30.2	14
13	10.4		12.4	30.4	13
12	11.0	37	13.0	31.1	12
11	11.1		13.1	31.3	11
10	11.2	38	13.2	32.0	10
9	11.3		13.3	32.2	9
8	11.4	39	13.4	32.4	8
7	12.0		14.0	33.1	7
6	12.1	40	14.1	33.3	6
5	12.2		14.2	34.0	5
4	12.3	41	14.3	34.2	4
3	12.4		14.4	34.4	3
2	13.0	42	15.0	35.1	2
1	13.1		15.1	35.3	1
0	13.2	43	15.2	36.0	0

Scoring Tables

Class IV. 125 Lb. Class (Continued)

Pts.	Standing Broad Jump	Running High Jump	Running Broad Jump	Baseball Throw	Shot Put	Pts.
	ft. in.	ft. in.	ft. in.	ft.	ft.	
20	8.7	4.9½	17.2	230	37.0	20
19	8.5¾	4.8¼	16.9	226	35.9	19
18	8.4½	4.7	16.4	222	34.6	18
17	8.3¼	4.5¾	15.11	218	33.3	17
16	8.2	4.4½	15.6	214	32.0	16
15	8.0¾	4.3¼	15.1	210	30.9	15
14	7.11½	4.2	14.8	206	29.6	14
13	7.10¼	4.0¾	14.3	202	28.3	13
12	7.9	3.11½	13.10	198	27.0	12
11	7.7¾	3.10¼	13.5	194	25.9	11
10	7.6½	3.9	13.0	190	24.6	10
9	7.5¼	3.7¾	12.7	186	23.3	9
8	7.4	3.6½	12.2	182	22.0	8
7	7.2¾	3.5¼	11.9	178	20.9	7
6	7.1½	3.4	11.4	174	19.6	6
5	7.0¼	3.2¾	10.11	170	18.3	5
4	6.11	3.1½	10.6	166	17.0	4
3	6.9¾	3.0¼	10.1	162	15.9	3
2	6.8½	2.11	9.8	158	14.6	2
1	6.7¼	2.9¾	9.3	154	13.3	1
0	6.6	2.8½	8.10	150	12.0	0

Scoring Tables

Class V. Unlimited Weight Class

Pts.	Three Lap Potato Race	Six Lap Potato Race	100 Yard Dash	220 Yard Dash	Pts.
	sec. fifths	sec. fifths	sec. fifths	sec. fifths	
20	15.0	32.3	10.4	26.0	20
19	15.1		11.0	26.2	19
18	15.2	33.3	11.1	26.4	18
17	15.3		11.2	27.1	17
16	15.4	34.3	11.3	27.3	16
15	16.0		11.4	28.0	15
14	16.1	35.3	12.0	28.2	14
13	16.2		12.1	28.4	13
12	16.3	36.3	12.2	29.1	12
11	16.4		12.3	29.3	11
10	17.0	37.3	12.4	30.0	10
9	17.1		13.0	30.2	9
8	17.2	38.3	13.1	30.4	8
7	17.3		13.2	31.1	7
6	17.4	39.3	13.3	31.3	6
5	18.0		13.4	32.0	5
4	18.1	40.3	14.0	32.2	4
3	18.2		14.1	32.4	3
2	18.3	41.3	14.2	33.1	2
1	18.4		14.3	33.3	1
0	19.0	42.3	14.4	34.0	0

Scoring Tables

Class V. Unlimited Weight Class (Continued)

Pts.	Standing Broad Jump	Running High Jump	Running Broad Jump	Baseball Throw	Shot Put	Pts.
	ft. in.	ft. in.	ft. in.	ft.	ft.	
20	8.11½	5.1½	18.2	270	42.0	20
19	8.10¼	5.0¼	17.9	266	40.9	19
18	8.9	4.11	17.4	262	39.6	18
17	8.7¾	4.9¾	16.11	258	38.3	17
16	8.6½	4.8½	16.6	254	37.0	16
15	8.5¼	4.7¼	16.1	250	35.9	15
14	8.4	4.6	15.8	246	34.6	14
13	8.2¾	4.4¾	15.3	242	33.3	13
12	8.1½	4.3½	14.10	238	32.0	12
11	8.0¼	4.2¼	14.5	234	30.9	11
10	7.11	4.1	14.0	230	29.6	10
9	7.9¾	3.11¾	13.7	226	28.3	9
8	7.8½	3.10½	13.2	222	27.0	8
7	7.7¼	3.9¼	12.9	218	25.9	7
6	7.6	3.8	12.4	214	24.6	6
5	7.4¾	3.6¾	11.11	210	23.3	5
4	7.3½	3.5½	11.6	206	22.0	4
3	7.2¼	3.4¼	11.1	202	20.9	3
2	7.1	3.3	10.8	198	19.6	2
1	7.11¾	3.1¾	10.3	194	18.3	1
0	6.10½	3.0½	9.10	190	17.0	0

SECTION 4

Boys' Athletic Meet Suggestions

A. Events

I. SHORT DASHES

50 yards
75 yards
100 yards
80 yard low hurdle, 3 hurdle
80 yard high hurdle, 10 yard start, 15 yard finish, 6 hurdle
Sack race
Walking race

II. FIELD EVENTS

Standing broad jump
Running broad jump
Running high jump
Shot put, 8-and 12 lbs.
Baseball throw

III. TEAM EVENTS

Relay races are most interesting events. The standard relay is the four-man event, each running one-fourth of the entire distance. From the standpoint of creating interest and for the younger boys, the short-distance relays are most worth while. The shuttle method of running relays is a very quick one, as not only may runs be used with many variations, but shot put and jumps may be run off as relay events by this method. The following is an explanation of the relay and shuttle types of running relays:

Relay Type

The competing teams are lined up in parallel columns of file, behind a take-off line which is marked across the field. The first player in each column, if the event be a jump, jumps forward from the mark. His jump is marked upon the ground by a sharp stick, or if indoors, by a piece of chalk. The column moves up, the first jumper goes to the rear of the line, and the second jumper toes the mark of the first and jumps forward in the same direction as the first jumper

jumped. The column moves forward and the third jumper jumps from the mark of the second. This continues until the entire team has jumped. The composite jump of the whole column determines the distance. Equal numbers of men must jump in each column.

In this type of meet it is necessary to have a very long field if you have large numbers in the columns. In view of this fact, the events should be selected which do not cover too great a distance. The race of the relay type, wherein men are stationed at equal distances along a given course, is pretty well known. The first runner touches off the second; the second, the third; and so on.

In the events of the relay type there should be an official for each team.

Events which can be used in this type of an athletic meet are:

Team relays
Standing broad jump
Frog race, in which competitors travel forward in frog leaps instead of running
Standing hop
Leapfrog jump, in which the down one toes a mark while the second takes a frog leap over his back for distance and gets down at the point where his heels broke the ground, for the third jumper to go over his back
Running broad jump
Weight-throw in back of neck. Weight is held by both hands and thrown backward
Back jump
Two standing broad jump
Standing hop

Shuttle Type

Teams are lined up in parallel columns behind a given take-off line. It is very essential that this take-off line be made prominent and permanent. The columns are grouped in pairs. No. 1 column competes against No. 2 column, No. 3 against No. 4, etc. The columns should be arranged so that the shortest player is in front of each. A good permanent line to

use for the shuttle type of meet is a tennis tape flush with the ground. If the event is a jump, the first competitor of one team takes his place at the take-off and jumps. His record is marked by a line, at one end of which is stuck up a sharp stick. The first competitor of the second column toes the line marked by the sharp stick and tries to jump from that position back to the original take-off. His jump is marked by a line and another sharp stick. The second jumper on the team that jumped first toes the mark made by the jumper on the opposing team, and jumps in the same direction as the first jumper representing his team. These two teams compete against each other, one team jumping against the other in shuttle fashion, until every man has jumped. If the last man to jump on the second team fails to come up to the original take-off, his team has lost the event; but if he jumps and reaches the original take-off line, his team is pronounced the winner. Team No. 3 is competing against No. 4; No. 5 against No. 6; and so on, at the same time that Teams No. 1 and No. 2 compete. Two officials should act, one to mark the jump of each team.

Suggested Events:

Standing broad jump
Running broad jump
Three running broad jumps
Standing hop
Running hop
Shot put
Hop, step, and jump
Backward jump
Baseball throw
Football punt
Football forward pass

B. Suggestions Concerning Athletic Meet

1. Rules

Rules governing all events are found in either the "Army and Navy Athletic Handbook," Association Press; or in the "A. A. U. Athletic Handbook," Spaulding.

II. SPRINTS

Mark out the course with either cord or white line. The lane in which each man runs should be at least three feet wide. Have two finishing posts at the finish line. Stretch a line of red wool or worsted from post to post to assist the judges. Have all starts and finishes plainly marked. It helps very much to have all finishes at the same place.

III. OFFICIALS

It is necessary to have the following officials. Their duties are stated in the handbooks referred to.

One Referee

Four Judges of the Finish, if picking three places: one to pick first place, two to pick second place, one to pick third place

Two or three Timers

One Starter

One Clerk of Course, an Assistant to run field events, and an Assistant to help him with track events

One Announcer

This is very important, both from the standpoint of getting runners out on time and of keeping the crowd informed.

One Scorer and an Assistant Scorer

If distance events are used or sprints are run on an oval track, inspectors would have to be placed at the turns.

If badges are furnished for the judges and several marshals or police are furnished, the track and field space can be kept clear. Roping the field. especially the space at the finish. helps in this respect.

IV. EQUIPMENT

1. *Track Events*

One gun and cartridges for the Starter

One whistle for the Starter

One whistle for the Referee

Numbers and safety pins for competitors

Red worsted for finish line

Score sheets for the Clerk of Course, and the Scorer, with extra sets for the Assistants

Stop-watches for Timers

2. *Field Events*

a. Jumps

Two standards seven feet high
Six cross-bars of wood or bamboo
One measuring tape or measuring stick
One shovel and rake
One take-off board, a joist four feet long, eight inches wide, sunk level with the ground
One balk line six feet from the take-off board
One soft landing pit, ten feet by twelve feet and in line with the take-off twenty-five feet long by four feet

b. Shot Put

One seven-foot circle
One curved toe-board, if possible four feet long, four and a half inches wide, and four inches high
Iron shots, eight and twelve pounds
One measuring tape

c. Baseball Throw

One regulation baseball
One measuring tape
(If measuring tape is not long enough, an arch may be marked off on the ground at any distance desirable and all throws can be quickly measured)

d. Sack Race

As many good sacks as will be needed in a heat

SECTION 5

Indoor Athletic Record

Athletic League of North America

Event	*Record*	*Name*	*Location*	*Date*
20 yd. swim on back	12 4/5 s.	R. M. Darnell	Memphis	10–21–16
20 yd. swim	8 1/5 s.	Clarence Lane	Honolulu	6–24–16
25 yd. swim	11 4/5 s.	F. S. Gillman	St. Paul	3–18–16
40 yd. swim	19 4/5 s.	John Kelii	Honolulu	
40 yd. dash, swim one turn	22 1/5 s.	Fred Ferguson	Canton	
50 yd. swim	24 2/5 s.	Clarence Lane	Honolulu	
50 yd. swim, breast stroke	34 s.	G. E. Reddall	Brooklyn	3–25–15
50 yd. swim, back stroke	30 s.	Harold Kruger	Honolulu	
75 yd. swim	39 3/5 s.	Clarence Lane	Honolulu	
100 yd. swim	56 4/5 s.	Clarence Lane	Honolulu	
100 yd. swim on back	1 m. 11 s.	Harold Kruger	Honolulu	
100 yd. swim, breast stroke	1 m. 18 4/5 s.	Wm. Fox	St. Paul	3–24–16
150 yd. swim, back st oke	1 m. 53 1/5 s.	Harold Kruger	Honolulu	
160 yd. relay swim	1 m. 15 2/5 s.	Duke Kahanamoku George Cunha Clarence Lane John Kelii	Honolulu	

200 yd. swim	2 m. 12 2/5 s.	Duke Kahanamoku	Honolulu	
200 yd. swim, breast stroke	3 m. 2 2/5 s.	Geo. Keawemahi	Honolulu	
220 yd. swim	2 m. 29 s.	Duke Kahanamoku	Honolulu	
400 yd. swim	6 m. 25 s.	Wm. Fox	St. Paul	3–18–16
400 yd. relay swim	3 m. 44 4/5 s.	Duke Kahanamoku George Cunha Clarence Lane Harold Kruger	Honolulu	7–22–16
500 yd. swim	6 m. 13 1/5 s.	Duke Kahanamoku	Honolulu	
500 yd. relay swim	4 m. 43 3/5 s.	John Kelii Duke Kahanamoku George Cunha Clarence Lane Harold Kruger	Honolulu	7–22–17
Plunge for distance	64 ft.	C. P. Schaub	St. Paul	4– 5–16
Under-water swim	202 ft.	G. E. Reddall	Brooklyn	3–25–15
Running high jump from springboard	7 ft. 10 in.	A. T. Robinson	Brooklyn	10–29–03
Running broad jump	21 ft. 1 ¾ in.	Ferdinand Tuers	Waterbury	12– 6–13
80 yd. relay swim, four men	42 4/5 s.	R. M. Darnell E. Wood R. V. Sims D. Boynton	Memphis	10–21–16

Plunge and swim under water	298 ft. 6 in.	Harry Boardman	St. Paul	7– 1–16
¼ mile potato race	1 m. 38 3/5 s.	L. H. Perkins	San Francisco	4–27–14
8 potato race	33 1/5 s.	Robt. Brindle, Jr.	Woonsocket	2–13–15
60 yd. potato race	13 1/5 s.	A. J. Connor	Newport	3–13–16
220 yd. potato race	57 4/5 s.	A. J. Connor	Newport	3–13–16
18 ft. rope climb	4 3/5 s.	R. O. Best	Buffalo	7– 2–01
440 yd. walk	1 m. 22 2/5 s.	Edmund V. Ray	Albany	4– 6–10
800 yd. walk	3 m. 14 4/5 s.	W. J. Rolker	Brooklyn	2–25–16
1 mile walk	6 m. 42 2/5 s.	W. J. Rolker	Brooklyn	2–25–16
1 mile relay	3 m. 30 s.	G. J. Schnabel J. J. McEntel C. M. Borgman Horace Hocking	West Side, N. Y.	3–14–11
2 mile relay	8 m. 13 s.	F. Oswald H. Orchard	Newport	2–20–15
Snap under bar	8 ft.	Luther Miller	Greenville	3–15–16
Putting 16 lb. shot	41 ft. 10 ½ in.	Arthur P. Stepp	Scranton	10–10–07
Putting 12 lb. shot	54 ft. 4 in.	R. J. Lawrence	Plainfield	3–13–09
Putting 8 lb. shot	55 ft. 1 in.	Wm. F. Wilkie	A. & N., Newport	1–23–15
Running long dive	14 ft. 8 in.	Louis Kilian	Orange	9–12–05
Running high dive from springboard	8 ft. 6 ½ in.	Chas. Stewart	San Francisco	9–19–98
Running high dive	6 ft. 1 3/4 in.	Walter McNaughton	Plainfield	9–12–05
20 yd. dash	2 3/5 s.	Hinie Orchard	A. & N., Newport	2– 1–15

35 yd. dash	4 2/5 s.	Irving T. Howe	Boston, Mass.	2–19–16
40 yd. dash	4 3/5 s.	H. Orchard	A. & N., Newport	2– 1–15
50 yd. dash	5 3/5 s.	Irving T. Howe	Boston, Mass.	2–19–16
75 yd. dash	9 s.	Carl H. Buenzle	Scranton	10–10–07
100 yd. dash	11 1/5 s.	P. Seidenstricker	Buffalo	10–10–07
220 yd. dash	24 3/5 s.	Irving T. Howe	Boston, Mass	2–19–16
300 yd. dash	35 2/5 s.	W. J. Marling	Boston, Mass.	2–19–16
Running high jump	6 ft. 1/16 in.	Thos. R. Moffitt	Philadelphia	4– 8–11
Standing broad lump	10 ft. 7 in.	A. M. Bohnert	San Francisco	4–14–15
Two standing broad jumps	21 ft. 3 ¼ in.	David Lane	Bridgeport	12– 5–02
Three standing broad jumps	32 ft. 11 ½ in.	J. A. Macdonald	Melrose	3–13–01
Standing high jump	5 ft. 1/8 in.	Dr. R. M. Leggett	San Francisco	4–27–14
Pole vault for height	11 ft.	John Wicks	Gary, Ind.	4– 1–16
Fence vault	7 ft. 6 in.	Geo. M. Woodman	Ft. Worth	3–20–15
Standing hop, step, jump	30 ft. 2 in.	Wm. H. Hatfield	A. & N., Newport	1–21–16
Running hop, step, jump	38 ft. 1 in.	Roger E. Daisley	Brooklyn	4–12–15
Double kick	8 ft. 1 ¾ in.	F. C. Crane	Aurora	11–30–01
Running hitch and kick	9 ft.	Chas. R. Toothaker	Philadelphia	5–20–04
Running high kick	9 ft. 4 in.	Paul Auther	Lincoln, Neb.	3–27–08
¼ mile run	55 4/5 s.	Frank Saurr	Chicago	3–15–08
600 yd. run	1 m. 21 4/5 s.	F. T. Donahue	Boston, Mass.	2–19–16
½ mile run	2 m. 3 1/5 s.	C. F. Souder	Toledo, O.	2–22–11
1000 yd. run	2 m. 27 3/5 s.	J. J. Losero	Boston	3–18–16

3/4 mile run	3 m. 52 2/5 s.	Harry Monroe	New Orleans	1-27-05
1 mile run—28 laps	4 m. 40 2/5 s.	Lt. F. V. McNair	Newport	3-30-12
2 mile run	10 m.19 2/5 s.	Wm. H. Quinn	San Francisco	4-14-15

Outdoor Athletic Record

Athletic League of North America

Event	*Record*	*Name*	*Location*	*Date*
50 yd. dash	5 3/5 s.	B. G. Leake	Ft. Worth	1-7-05
400 yd. relay	3 m. 53 4/5 s.	Harold Kruger Clarence Lane John Kelii George Cunha	Honolulu	6-24-16
56 lb. weight	30 ft. 3 ½ in.	Wm. Lynch	A. & N., Newport	6-10-16
100 yd. dash	10 s.	C. W. Swenson	Chicago	
220 yd. dash	22 s.	N. J. Cartwell	Louisville	1-27-05
440 yd. run	52 3/5 s.	E. M. Tourtelot	Chicago	3-15-01
880 yd. run	2 3/5 s.	B. Dodd	Long Beach	4-11-08
1 mile run	4 m. 38 s.	Edw. O'Brien	New Haven	6-22-12
2 mile run	10 m. 19 3/5 s.	A. A. Haigh	Chicago	1-27-05
5 mile run	28 m. 10 1/5 s.	F. Barnikow	Meriden	9-18-09
1 mile relay	3 m. 36 1/5 s.	Paul Smith Elmer Millsap Eugene Kern Elliott Gibbs	Los Angeles	4-11-08

2 mile relay	9 m. 53 4/5 s.	W. McLaughlin J. Cutchley C. English H. Dodd	Paterson	10–10–08
120 yd. hurdles	16 1/5 s.	W. T. Fishley	Chicago	4–30–01
220 yd. hurdles	27 s.	Eugene Kern	Pasadena	4–11–08
Standing broad jump	10 ft. 8 ¾ in.	C. M. King	Dallas	10–29–03
Three standing broad jumps	33 ft. 9 in.	C. M. King	Dallas	10–29–03
Standing high jump	4 ft. 10 in.	C. M. King	Dallas	10–29–03
Run, hop, step, jump	43 ft. 10 ¼ in.	Carl J. Sauer	Bridgeport	6–22–12
Running high jump	6ft. 5/8 in.	Robt. C. Merriam	Pasadena	4–11–08
Running broad jump	21 ft. 11 5/8 in.	Elliott Gibbs	Pasadena	4–11–08
Pole vault height	11 ft. 5 ¼ in.	Harry Wessels	New Britain	9– 5–10
12 lb. shot put	46 ft. 6 ¼ in.	A. B. Gunn	Buffalo	6–22–07
16 lb. shot put	40 ft. 7 in.	A. B. Gunn	Buffalo	
12 lb. hammer without turn	130 ft.	E. VanGent	Ottumwa	6–18–10
12 lb. hammer with turn	123 ft. 5 in.	A. B. Gunn	Buffalo	6–22–07
16 lb. hammer with turn	128 ft. 7 in.	A. A. Johnson	St. Louis	
Discus (free style)	123 ft. 2 in.	Harry Kanatzer	Kansas City	7–24–09

SECTION 6

AMOS ALONZO STAGG
Yale '88

The memory of great athletes soon fades and new stars soon come on to hold the interest of the public and the boy to whom a great athlete is a hero. This is not true of A. A. Stagg, the "grand old man" of American amateur athletics. Perhaps no man in America has had more to do with raising college athletics to a high plane of sportsmanship.

Stagg first made his place as an athlete in high school at Orange, New Jersey, at Phillips Exeter Academy, and then at Yale where he graduated in the Class of 1888. While he played 'varsity football two years, being chosen all-American end one year, it was in baseball that he shone especially. During the five years that he pitched, Yale won the intercollegiate championship each year. During his year as captain he won from Harvard in two great games. In his last year Yale won what were probably two of the greatest series of intercollegiate baseball ever played, three of her five games with Harvard being won by one run and three of her four Princeton games resulting similarly, the other being a tie. While in college Stagg was urged to play professional ball and both before and after graduation was offered positions by six major league teams, but refused.

Stagg's greatest fame has been won as coach and athletic director at Chicago University, where he has served more than a quarter of a century, partly because of his tremendous influence for clean sport and high character. Former President Harper said of him: "His intense love for pure sport, his incorruptible spirit, his indefatigable effort, his broad-minded zeal, and his absolute fairness of mind and honesty of heart have exerted an influence upon western university and college athletes that has been felt far and wide and produced results of which we may well be reasonably proud."

Coach Stagg was active in Christian work at Yale, took a year's work in the Divinity School, was secretary of the Y. M.

C. A. two years, attended the Y. M. C. A. College at Springfield, Massachusetts, and as a coach does not hesitate to express his convictions regarding Christian character.

We would covet for every boy in America the rich privilege that was ours of chatting an hour with the rugged, weather-beaten "grand old man," athlete, coach, and Christian gentleman.

ARTHUR POE

Princeton '00

When we think of outstanding Christian athletes one of two men who first come to mind is Arthur Poe, Princeton '00. During the nineties and the first half decade of this century, a Princeton team without a Poe was like the Giants without Christy Mathewson. There was Johnny Poe, soldier of fortune, killed while fighting for France; then there was Arthur Poe, of whom "Bill" Edwards writes: "There never was as much real football ability concealed in a small package as there was in that great player, Arthur Poe."

Handicapped by injuries and perhaps by lack of weight, he did not make the 'varsity until his Junior year, but that year and the next he made football history with a vengeance. Playing end against Yale in '98, he grabbed a fumble and in spite of a very bad knee ran one hundred yards for a touchdown, the only score of the game. The next year he was again at end against Yale; the score stood Yale 10, Princeton 6, with less than a minute to play Princeton on Yale's 35 yard line and her drop-kicker out of the game—a hopeless situation, but Arthur Poe kicked that goal which then counted five points and again he had beaten Yale. It can be taken for granted that he was the hero of Princeton that night. That year he was chosen by Camp as "all-American" end.

One of his classmates writes of him: "Arthur Poe, notwithstanding his size and the fact that he was far underweight, feared nothing on earth. . . . One of his outstanding qualities has always been his modesty."

Poe is a man of unquestioned Christian character, now holds a responsible business position, is Junior Warden in the Episcopal Church, superintendent of the Sunday school in that church, on the Board of Trustees of the Young Men's Christian Association, and does not hesitate to go on record before a group of older boys as to his belief in prayer and Christian living.

JOSEPH C. McCRACKEN, M.D.

Pennsylvania '01

It was Thanksgiving Day and Pennsylvania and Cornell were playing their annual football game on Franklin Field. No matter what the season may be, what the defeats or the victories, when the "Big Red" Cornell team journeys to Philadelphia there is sure to be excitement. This is the case today and just so it was on Thanksgiving Day, 1900. The usual tremendous crowd was out and the interest was just as intense as ever.

The event that remains in the memory of those present was not some particular play of the game, but the tribute paid to one of the players. One of Pennsylvania's men was injured and as he was led off the field the whole vast audience stood bareheaded, in silent tribute and admiration. One who has seen scores of games says it was the greatest ovation he has ever seen given a player. It was a tribute to character as well as to football ability.

The injured player was Joseph C. McCracken, a Kansas boy who while at Pennsylvania made a name for himself in football and track. With Hare he played and perfected the famous "guards back" play—perhaps the greatest football play ever devised. He was also captain of the University Track Team and broke the intercollegiate record in the shot put and the world's record in the hammer throw. His classmates' estimate of him is indicated by the fact that he was president of his class four years. Undoubtedly he was one of the most popular men ever graduated from the University of Pennsylvania.

McCracken had made the decision for the Christian life in a sod church out in Kansas and while in the university he stood by that decision. He was president of the University Young Men's Christian Association and did a real job. The President of his

Alma Mater writes about him: "I don't know of any one who is a finer Christian than Joe McCracken. His influence as a Christian on the campus of the University of Pennsylvania was simply marvelous. He has been such a consistent, manly Christian that everybody who has learned to know him admires him. He is modest, unassuming, and yet very forceful and capable."

McCracken decided to become a missionary and is now Dean and Professor of Surgery in the Pennsylvania Medical School, which is the Medical Department of St. John's University, Shanghai, China.

Country boy, great athlete, popular college student, Christian leader, missionary—we have an idea that Joe McCracken would say it has all been infinitely worth while.

BRANCH RICKEY

Ohio Wesleyan '04

President and Manager, Cardinal Baseball Team
National League, St. Louis

Ask any boy in St. Louis who the popular man of the city is and there will be no mistaking his answer. If the boy happens to be a member of the "Cardinal Knot Hole Gang" his answer will come with a bang. The "Cardinal Knot Hole Gang" is just a part of a plan for allowing a city to own financially and sentimentally its professional baseball club. Generally a professional ball club is owned by one man or a small group of men, who are in it for the money and who may even live in another town. Not so with the Cardinals, which is simply the name of the St. Louis National League baseball team, for the people of St. Louis, lots of them, own that team—they bought small shares of stock in the organization and the Cardinal Knot Hole Gang is just an organization of boys who by meeting certain requirements get passes to the games. The boys of St. Louis shout for the Cardinals.

The leader in the idea is Major Branch Rickey, one of the interesting men in professional baseball—interesting because he is a leader, has new ideas, makes good on them, and is not afraid to stand for the thing he believes in.

Rickey graduated from Ohio Wesleyan University in 1904. While in the university he played 'varsity football, basket ball, and baseball and was a star in all of them. He was one of the best all-round athletes Ohio has ever had. After graduation he coached at Ohio Wesleyan, Alleghany College, and the University of Michigan. While at Michigan his baseball teams were uniformly successful.

During this time he also played professional ball, catching for the St. Louis and New York American League teams until he was injured and obliged to give up playing. One of the things that made him interesting at this time was his refusal to play on Sunday. Afterwards Rickey became manager and vice-president of the St. Louis American League Club and finally organized a company and purchased the Cardinals. He is now President and Manager of that club—the St. Louis National League Club.

Rickey's college mates swear by him and enthuse over him yet; the big league officials thoroughly respect him, and the managers know that he will give them a mighty good fight; and the boys of St. Louis shout for Rickey and the Cardinals.

Athletic, managerial, and executive ability, however, are only a part of this man's achievements. He holds degrees of Bachelor of Arts, Bachelor of Literature, and Doctor of Jurisprudence, and at Michigan University Law School he won high honors. He was a major in the American Expeditionary Force in France in the World War.

Rickey became a Christian while in college, is now a member of the Methodist Church, is on the Board of Directors of the Y. M. C. A., and gives all the help he can to work among boys. The following is his own attitude on some points: "A clean, straightforward, right-thinking athlete is the best. The boys who do not play fair with themselves in their training are uncertain in their work and do not last. I do not have boys of bad habits in my club or in the organization in which I am connected. I do not inquire about their religious views or practices. *I think the strongest have both.*"

WILLIAM STEPHEN CHANDLER

Wisconsin '18

It is always interesting to delve into the records of athletes of former generations. It is especially gratifying to read of those men who were great athletes and also men of sterling character. Former generations, however, had no monopoly on that type of athlete. They are just as prevalent now as then, and we are optimistic enough to believe more so.

Basket ball has come to be a major college sport and is occupying an increasingly large place in college athletics. In the central west, the "Big Ten" University Conference, the University of Wisconsin has gained a reputation for its winning basket-ball teams. This was especially true during the years 1915 to 1918. We were watching a cracking good game one night between Wisconsin and another large university team. There were only a few minutes left to play and Wisconsin was behind, but there came a rally with a snap and a rush that was not to be denied. Wisconsin had the habit and won the game.

That "habit" was largely built around the center, who stood six feet and more and played the game every minute. "Bill" Chandler was a star basket-ball man when a member of the Robert Waller High School, Chicago. As soon as he became a sophomore in the university and eligible, he made the 'varsity basket-ball team and played three years, was captain in his senior year and for three years was chosen as center of the "All-Western Conference" team. The last year he was also captain of the Mythical Five.

Chandler enlisted before graduation and was stationed at Great Lakes. Here he also played center and starred on the Great Lakes team. Chandler was a grand basket-ball man, one of the great ones; he was a good leader and had that battling spirit that kept him going against great odds; that he was popular among his fellows is proved by the fact that he was president of his class, was a member of the Y. M. C. A. cabinet and of several honorary fraternities.

Our next look at Chandler after the basket-ball game mentioned above was at a large meeting of older boys where the lanky, modest captain was quietly and seriously telling the fellows his views of the Christian life. We learned then that he had for years been a member of the church, had been president of a Sunday school class of about one hundred boys, and that during his university days he had been making many talks to older boys such as we heard him make. He is living the Christian life himself and he believes in telling other fellows about Christianity.

LIEUT. LAURENS C. SHULL, D.S.C.
Chicago '16

To be a "Three 'C' " man at the University of Chicago is no small achievement. To do that and win the unqualified endorsement of coach, professor, and pastor as a splendid Christian is more; and to give one's life on the battlefields of France, being awarded the Distinguished Service Cross, would seem to be the natural result of a spirit of devotion, service, and Christianity.

This is the record of Laurens C. Shull, Chicago '16: When in high school at Sioux City, Iowa, "Spike" was captain of the football, baseball, and basket-ball teams. In the university he played tackle on the 'varsity football team, center on the basketball team, and was pitcher on the baseball team. He was chosen all-Western tackle after playing on the championship football team of 1915. In 1916 he was captain of the baseball team.

It was our privilege to watch Spike in action on the gridiron and the basket-ball floor, and we enjoyed it. We have seldom seen a finer specimen of physical manhood, but it is not so much because of his athletic career that he is included in these lists. Star athlete he was, but what men say of him means more.

One of his professors, commenting on his religious life, said: "His God was as essential to him as his clothes."

General Pershing, in advising the War Department of the awarding posthumously of the Distinguished Service Cross to Lieutenant Shull said: "Near Soissons, France, July 19, 1918, he led his platoon with brilliant courage in two attacks, was badly

wounded in a third when with equal vigor he advanced against a machine gun nest."

His university pastor says of him:

"One evening, I think in his junior year in the university, when he had been tackle on the Conference Championship eleven, pitcher on the nine, and center on the basket-ball team, he knocked at my door in Hitchcock Hall and began the conversation by saying that he wanted to join our church. He explained that he had been having a rather stiff time with some things in college, and that he had suddenly realized that if he did not turn over a new leaf, he would not become the kind of a Christian man his father was, whom he called the finest man he knew. When I remarked that if he took this step all the university would know about and discuss it, he replied that he wanted to *nail up his flag so that it would never come down*, and that he would like to be baptized as soon as possible. Shortly after, in the baptistry over which our service flag now hangs with a gold star in his memory, I baptized him.

"The following Decision Day in our Sunday school, 'Spike' Shull told his own story and urged the boys and girls not to put off committing themselves to the Christian life so many years as he had done. As a result of his moving appeal, many of our boys and girls, and also two college graduates of his own age who heard it, were baptized and joined the church.

"At the outbreak of the War, 'Spike' Shull was among the first to enter an officers' training camp and among the very first to go overseas as a Second Lieutenant in the Regular Army. The last letter I had from him, written at the Front, spoke of the great difficulty, discomfort, and danger of their situation, but went on: 'You can safely say that we are happy. To be among the first is our desire.' In July, 1918, being then a First Lieutenant in command of Company G, 26th Regiment, First Division, A. E. F., he led his men in three successive charges on a machine gun nest, in the last of which he received severe wounds that caused his death on August 5th."

CHAPTER X

AQUATICS

SECTION 1. SWIMMING
SECTION 2. SWIMMING RECORDS

SECTION 1

B. DEANE BRINK

Oh, boy! It was great! Never was there anything that brought so much joy into life as that "Ole Swimmin' Hole," or the "Tank" in the old "Y". The thrill of the splash! The fun of being in the midst of that wriggling, diving, splashing bunch of humanity! It was great fun and it brought with it a sense of mastery and achievement that made it a real joy.

Swimming is a fine all-round exercise. Because the body lies flat the heart does not have to work as hard to pump the blood as when the body is standing up. It tones up the nerves and muscles, and because of the yielding surface there are no bumps or bruises. The work is evenly distributed, so that there is little danger of strain. The poisons which result from the breaking down of the muscle cells are thrown out through the pores of the skin and washed away.

But swimming is fine, not alone because it is the best fun ever, and makes strong bodies, and washes away dirt and poisons. It is so important that a number of schools and colleges consider it a necessary part of a boy's education. Education, you know, is not just learning a lot of facts. Education is learning how to live. To live right one must have will power, self-reliance, and courage. Swimming teaches all three. But to live right one must add to will power, self-reliance, and courage the willingness to serve.

In the great World War the waste in man power was terrible, but few boys realize that in peace times there are enough people who drown every two months to man a large battleship. In the United States and Canada alone each year more than twenty thousand people lose their lives in preventable drowning accidents.

It is because we are accustomed to this terrible waste of life and so few are prepared to help that we go about thinking little and caring less about its prevention.

Every boy should learn to swim because:

1. It is the duty of every American boy to be prepared to save his own life and the life of others.
2. It is the best known form of physical exercise.
3. It is great fun.

But dog-paddling around in a "crick" or pond does not always make good swimmers. In fact, bad swimming habits learned in the "Ole Swimmin' Hole" stick through life, and lots of real fun is lost because the swimmer tires easily and cannot seem to do the crawl, breast, and other strokes as others do them. He has not learned the A B C and arithmetic of swimming. It is as easy to learn to swim as "falling into the water." If a boy has strength enough to stand, is possessed of an average amount of brains, and can get to where there is enough water to float him, he can learn to swim. In fact, it is possible to learn the most important things about swimming with only a washbasin of water and room to fling the arms and legs around. Swimming is hard only as it is made so. Success depends upon oneself and the attitude taken toward water. There is only one real reason why any person cannot swim, and that is F-E-A-R Fear. In very young children this condition does not exist, but the average person, who though he has had the opportunity yet cannot swim, is unable to do so because at some time in his life he has been shocked or frightened either by being "ducked" or splashed, by being pushed or by falling into the water, or by hearing, reading about, or actually having a part in a boating or drowning accident.

Five Laws of Swimming

In learning to swim, dive, and save life there are five things to remember. Five. Count them on the thumb and fingers of your hand: (1) confidence; (2) breathing; (3) balance; (4) relaxation; (5) coordination; and the greatest of these is confidence. When confidence comes in, "Old Man Fear" goes out, and with this nuisance out of the way the rest is easy. One of the things that will help in gaining confidence is to realize that for the time being the beginner is going into a new element, the home of Mr. and Mrs. Fish, and must therefore learn to "feel at home" in the home of the fish, and pay them and their home all the respect that is ordinarily given to one's human friends. It will also help create confidence to know that, like the fish, you cannot sink or drown provided your lungs are kept full of air. This sounds silly, but think it over. Another thing to remember in learning to feel "at home in the water" is that familiarity breeds "content," and when contented one is at ease and relaxed.

The Easiest and best Stroke to Learn

Many instructors have evolved many systems, but one of the best, because both scientific and natural and therefore easy, and because it has brought remarkable results, is the one here given. It is so easy and natural that any boy can learn it. A year ago at a summer camp a boy of fifteen who, through an accident, had had his leg cut off at the hip, learned within ten minutes to swim twenty-five feet. The beauty of it is that the movements can be learned by means of a land drill without much effort. The timing and movements of the arms and legs closely resemble the dog paddle or primitive man's natural stroke. It is interesting to note this style of swimming shown on old Assyrian monuments many years before Christ. After this fundamental crawl stroke is mastered and a boy

has learned to feel "at home in the water," the breast, back, crawl, and side strokes can be learned.

Breathing

The beginner should go into the water about waist deep and if learning in a large body of water, always face the shore or teacher. Now to learn how to breathe—for remember that in entering the home of the fish the swimmer must adapt himself to a new home of environment. He must breathe as the fish do. In the majority of swimming strokes the head is held face down in the water, the air being gasped in through the mouth as the head is turned sideways up, and breathed out through the nostrils as the head is turned face down. The reason for this is that the swimmer can in a given space of time get more air into the lungs through the mouth than through the nose. Also, if the water was inhaled through the nose it would irritate the lining of the nasal cavity. To learn to breathe properly, place hands on knees, turn the head sideways up, and through the mouth gulp or gasp the lungs full of air. Then turn the head face down and blow the air out through the nose. Repeat this on two counts, keeping the rhythm as in music, one, two, one, two, etc., gradually bringing the face near and finally into the water until able to breathe out against the water resistance. Never forcibly submerge the face and body. This is likely to make the body rigid. This is wrong, as relaxation is absolutely necessary if one is to feel "at home in the home of the fish." Step two, then, is to learn to have the face in the water, first with eyes closed, and then open. Stand as before with hands on knees, turn head sideways up, gulp lungs full of air, then place the head gently in the water face down, hold it in this position for a few seconds, and then as

gently remove head, face down, from water. As the face leaves the water open the mouth wide. Do this to allow the few drops of water which have been forced up through the nose into the head cavities to flow out of the mouth rather than down into the stomach, causing nausea and fear. This is important; remember it.

It will help in developing confidence if the beginner will open his eyes after placing the face in the water and try to count pebbles held in the hand or to count the extended fingers. This distracts the attention from any unpleasantness and introduces an element of interest.

Balance

As the greater part of our working hours are spent in an upright or vertical position or plane, we have through the years developed certain habits of balance and have trained our muscles, bones, and nerves to hold the body up straight. Now since the beginner is trying to learn how to act, breathe, and move like a fish, he must learn to move in the home of the fish not standing but lying down. In other words, he must form new habits of balance, for no fish other than the horse fish swims standing up on end.

To learn to balance, the beginner will imitate a floating turtle. This is done usually after the first trial and really marks an important step in learning to swim, for once the sensation of balance and floating flashes on the mind of the beginner, progress is rapid. In water up to the chest, with the hands on knees, bend the knees until water reaches the chin. Then turn the head sideways up, gulp a lungful of air, turn the head, chin down on chest, reach hands down, and grasp shins halfway between knees and ankles and pull knees up tight to the chest. The feet will leave the bottom and the body will float in a fine example of a turtle. It will not sink. To return, release grasp, drop feet to bottom, raise head, face down, open mouth and eyes, but do not straighten body until water is out of mouth. Because the human body weighs almost the same as an equal body of water and therefore weighs practically nothing in the water, and because it is held up by about two hundred cubic inches of air contained in the lungs, it is impossible for the body to sink. Try it, push a person imitating a floating turtle to the

bottom and immediately he will return to the surface and remain so until the air is exhaled from the lungs.

Relaxation

Further to develop balance and bring about relaxation, imitate a jellyfish by taking a coasting plunge as follows:

Bend knees until water reaches the chin, turn head sideways up and gasp lungs full of air, then turn head face down between extended arms, get a good purchase with the feet on the bottom or, if in an indoor pool, with one foot against the side, push off face down, arms extended in front with wrists hanging down and limp, let legs trail along slightly spread. If in clear water keep the eyes open. This will help him to know he is actually moving ahead and will of course increase his confidence. In this coasting or floating plunge the natural buoyancy of the body is very noticeable. As soon as the momentum stops and the legs begin to drop, draw the knees up to the chest and then drop them to the bottom, at the same time sweeping the arms sideways until wide apart, then with a swift movement bring them together with palms of hands facing. As the hands are brought together, forcing a wedge of water away from the body, raise the head, but keep the face down with mouth open to allow water to escape. Remember this is the proper way to regain your balance, for every movement helps to place the beginner in a standing position. Try and overcome the tendency to rug the water from the eyes as it tends to make the body rigid. Our aim, you know, is relaxation, and with relaxation comes confidence. Do not hurry—take plenty of time in all the movements. The beginner now has splendid confidence.

He has learned:

1. That the water is his friend and that he actually feels at home in the home of the fish.

2. That he positively will not sink so long as his body is relaxed and his lungs kept full of air.

3. That given a push his body will float in the direction of the push.

4. That if he wants to regain his balance he just stands up, pushing back against the water with his hands.

5. That he will not feel "sick to his stomach" if on taking his head out of the water he holds his face down and opens his mouth.

Our swimmer now has confidence, knows how to breathe, has acquired a new sense of balance and knows how to relax. What has seemed the most difficult thing in the world is now as "easy as pie" and all that remains is to teach his legs and arms to work together, or coordinate (Fig. 1).

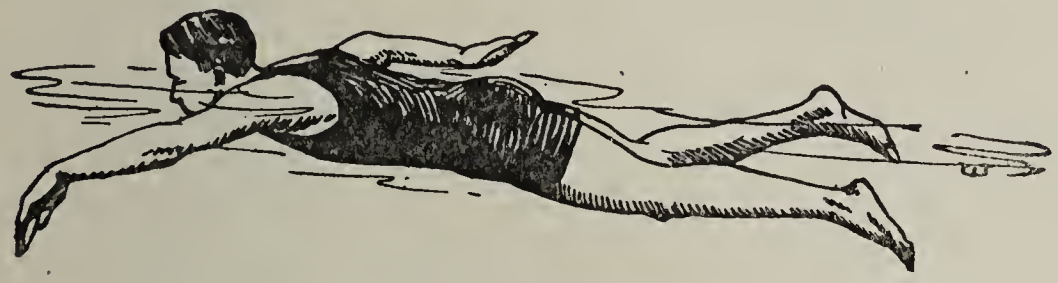


Fig. 1. Crawl stroke

Coordination—Leg Movements

Coordination, then, is the last step. A fish, frog, motor boat, or a human fish is actually kicked through the water. The fins of the fish and the arms of the human help in getting this result. To learn this leg kick, lie down in the water, facing shore, with the hands or elbows resting on the bottom, or if in an indoor pool, lie over the edge with the feet in the water or lie over a stool or chair with hands resting on the floor, keeping the chest and knees on the same level. Kick the feet alternately up and down with little or no hip motion. The feet are moved about six inches up and down with the toes turned in and the feet kept only a few inches apart, the major action being centered in the knees. Any flexing or bringing of the thigh forward stops progress. Therefore make a slow, easy, alternate up, back, and down movement of the leg and foot. Do not hurry, take your time. Hurry makes the muscles tired and rigid and leads to shortness of breath. When able to do this elementary scissor kick return to water about chest deep, face the shore, take a deep breath as described, and with head face down between the extended arms give a strong push from the bottom or side of pool. As the body glides foward, start the kicking or scissor

movements of the feet and legs. Keep this up until necessary to breathe, then regain the balance as described. Do not reach or push down with the hands, for a body in the water will always follow the direction of the hands and arms and instead of regaining one's balance the body will sink head first. If the water is clear and the eyes kept open the beginner will realize with joy that he is know making headway under his own power. He is swimming, for swimming is the ability to move in the water in a definite direction.

Arm Movements

Now for the arm or paddling movements. In water about waist deep (this exercise may also be done as a land drill), stand with feet well braced, one in front of the other, and bend the body at the waist until the chest is about on a level with the surface of the water, the left arm extended front with the palm turned down and the wrist slightly bent, the right arm extended back with the palm turned up. Now with a rolling movement of the body imitate a windmill, keeping the arms the same relative distance apart, one hand gripping and pulling as the other leaves the water. After this movement becomes easy return to water chest deep, take a deep breath, as described, and with head face down between the extended arms give a vigorous push with the feet from the bottom or side of the pool and before the momentum of the body stops start the windmill movement of the arms. The legs should trail along relaxed—as the body rolls they will unconsciously move slightly up and down in a rudimentary scissor movement. Keep the legs together and the toes pointed back. In this arm movement do not attempt to move the legs. Let them, like a cow's tail, "trail behind." Keep the fingers together so that the hand is cupped and resembles the blade of a spoon oar. Be sure that the hand is bent down at the wrist so that the swimmer gets the benefit of the pull as soon as the hand enters the water. As suggested before, it is a good plan to keep the eyes open so as to watch the arms and also the bottom of the pool to see how fast he is moving. Be sure to pull all the time the arm is under water and that it does not leave the water until it reaches the hip. In other words, do not make the stroke choppy. Again remember to take plenty of time and when out

of breath regain the balances as described. All that remains now to do is to put together or coordinate the leg and arm movements and the swimmer will then feel completely confident and from this point on his expertness and happiness will depend upon practice.

Combined Leg and Arm Movements

Now to complete the mechanics of swimming and put together everything learned about this health-giving, joy-making, character-building sport. After taking a big bite of air, bend the knees and give a good strong push foward and, before the momentum stops, start the leg scissor kick; then after a few kicks begin the windmill movements of the arm. Begin by taking a half-dozen strokes and then add more until able to continue until the breath gives out. As stated before, the swimmer fills his lungs by turning the head sideways and biting off a big chunk of air, exhaling or blowing the air out again through the nose when the head is face down in the water.

Breathing and Stroke

Now to combine the breathing with the stroke. When the swimmer feels compelled to breathe, say after about the sixth stroke, as the right arm leaves the water at the end of the stroke force the air out through the nose, then turn the head sideways up and bite off another lungful of air and as the right hand again enters the water turn the face down into the water. Some swimmers find it easier to turn the head to the left. In this case breathe as the left arm leaves the water. After the movement and breathing become easier, the leg movement should begin at the hip with a snapping action. The legs should not be held stiff but controlled enough to prevent sloppy action. The number of leg drives for each arm stroke depends upon the build of the swimmer. Find the number best suited and stick to that number.

Artificial Aids

Now a few words about artificial aids or supports in swimming. Any floating devices, such as belts and pulleys, trolleys, poles, and buoys, except in very rare instances, are unnecessary and

very doubtful helps. They serve only to give a false sense of security and actually retard the advance of the learner. Where the coordination is extremely poor, small compact light fabric water wings may be used, but if the suggestions given here are faithfully carried out there will be no need of any artificial support. The use of an artificial support shows that there is not the proper confidence. In this system the swimmer will learn to trust the water as a friend. He knows that if the lungs are full of air and his muscles are relaxed he cannot sink and that it is easy and natural to paddle and kick. If he paddles and kicks his body face down through the water, he offers the least resistance to the water and therefore moves faster than with any other stroke. He is thrilled with the joy of doing. He has gotten self-reliance, health, strength, character; has learned something that may prove to be the means of saving his own or other precious human life; and, finally, he has learned how to teach others to swim—a real service.

Breast Stroke

After having learned to swim by the easiest and most natural method the swimmer should give attention to other strokes which have real value, as, for instance, in life saving, when necessary to dive from the surface or swim under water in giving help to a tired swimmer, the breast stroke is very useful. This is a very complicated stroke but can be mastered easily after having learned to feel "at home in the water," for he can now give all his attention to the movements. Until 1916 this was a very slow, tiresome stroke. It often produced headache and the swimmer could go but a short distance before getting winded and tired. The headache was largely due to having to hold the head back on the shoulders at an unnatural angle in an attempt to keep water from splashing into the mouth. This unnatural position interferes with the proper circulation of the blood in the neck and head and causes congestion. By adding a long glide at the end of the stroke, with the arms and legs extended and the face submerged, a much easier and faster stroke has resulted. It is well in learning the breast stroke to practice it first as a land drill, so that on entering the water the

movements will be mechanical and allow the swimmer to give his whole attention to proper breathing, etc.

Breast Stroke—Leg Movement

Standing Position

1. Raise the left knee, directing it sideways, the heel of the left foot touching the inside of the right knee, toes pointing downward.

2. Straighten and lower the left leg by a backward, downward movement until the big toe of the left foot touches the floor about one pace to the left side.

3. Draw the foot with a snap toward the right foot. Do these three movements several times until they become natural and easy.

Breast Stroke—Arm Movement

Standing Position

In this the position of the hands is important. Hold the fingers close together, thumb against the first fingers, extended straight, the palm of the hand slightly cupped. With the hands in this position extend the arms in front as far as it is possible to reach.

1. Turn the backs of the hands together with the elbows straight; sweep the arms back until they are a little beyond a straight line across the shoulder.

2. Bend the arms and bring them edgewise to the front of the chest so that the middle fingers meet, palm down, at a point midway between the chin and breast, elbows close to side ribs.

3. Shoot the hands foward to position.

Breast Stroke—Combined Leg and Arm Movement

Standing Position

Start with the feet together and the arms extended front.

1. Sweep arms back until slightly beyond a line across the shoulders and raise the left or right knee until the heel of the raised foot touches inside of the opposite knee.

2. Bend arms, hands to chest, straighten and lower raised leg to floor, one pace to the side.

3. Shoot hands foward, palms down to position in front and snap extended leg toward other foot. Do this until leg and arms work together smoothly.

These movements may also be practiced lying across a bench, stool, or chair—the arm movements as above described, the leg and combined movements as follows:

Leg Movements

Lie face down across the bench, legs straight.

1. Draw up both legs, spread the knees and bring the feet together, big toes touching.
2. Extend both legs sideward and out wide apart.
3. Snap the legs and thighs together to starting position.

Combined Leg and Arm Movement

Lie across bench with legs and arms extended, feet together, palms down.

1. Turn hands back to back and sweep arms back to slightly beyond a line through shoulders, at the same time drawing up the legs with knees spread and feet together.
2. Bring hands to chest and extend legs sideward, out, and wide apart.
3. Shoot hands to position in front, palms down, and snap legs together, finishing the stroke.

Breast Stroke in the Water

After the swimmer has learned the movements of the breast stroke, enter the water breast deep. Take a deep breath through the mouth, bend the knees, give a vigorous push off, face down so that the water is just below the eyes, body floating with legs and arms extended. Before the momentum stops sweep the arms back to just beyond the shoulders and draw the legs up, knees spread, feet together. Then as the hands are brought to the chest, extend and spread the legs wide apart. The stroke is finished by shooting the hands ahead and whipping the legs together with a snap. At this point the body relaxed glides forward, the air being blown out through the nose. When ready for the next stroke, raise the head foward, bite off a chunk of air, lower the head, and repeat movements as above. If desired, this stroke may be executed without having the face in the water,

but because of the neck strain the swimmer is likely to tire much more quickly.

Back Stroke

There are several kinds of back strokes and the swimmer should know how to do each of them. This stroke is not only essential in life saving but is useful in getting out of weeds and eel grass; also, when tired, a change to the back stroke will quickly rest the swimmer. This stroke can be learned as a land drill.

Underarm Back Stroke—Land Drill

Underarm Back Stroke—Leg Movement

Lie on back on the floor or on a long bench.

1. Draw up legs, knees spread, feet together.
2. Extend and spread the legs wide apart.
3. Whip or squeeze the legs together with a snap.

Underarm Back Stroke

Arm Movement

Start with the hands at sides of thighs, palms in.

1. Draw arms up, elbows close to ribs, hands on chest.
2. Extend the arms wide apart.
3. Sweep the arms, elbows straight down to the thighs as in the starting position.

Combined Leg and Arm Movements

1. Draw legs up, knees spread, feet together. At the same time raise the arms, elbows to ribs, hands to chest.
2. Extend and spread the legs wide apart and shoot arms out sideways on a line with the shoulders, thumbs up.
3. Whip the legs together and sweep the arms, elbows straight, down against the thighs.

Underarm Back Stroke in the Water

In water breast deep, bend the knees and with head held back and arms loosely held, take a deep breath and give a vigorous push slightly up and back. Allow the body to float for a moment on the back, then do the movements as described under the land drill combined leg and arm movements. Exhale through the nose at the end of the stroke. Inhale through the mouth as the

stroke begins. It is a good plan to practice swimming with different leg and arm combinations. For making rescues this stroke is indispensable. For speed and long distance events the back crawl and back double overarm strokes are used.

Treading Water

Very often in making rescues it is necessary to use both hands in turning the person on his back. To do this allow the feet to sink until the body is upright, then with a loose knee action move the feet and legs as if riding a bicycle. This will be found to be a very useful stunt.

Sculling

Sculling is moving forward or backward, face down or on the back, using a wrist, forearm, and shoulder movement only.

Head First on Back

To scull head first, on the back, drop the head slightly back, with the hands and arms at the sides, hands bent up at the wrist.

Work the hands with a short side-to-side sweep and push, much as a Venetian gondolier or a dory fisherman uses his single oar.

Feet First on Back

Same position, except that the hands are bent down at the wrist and pulling with the side-to-side movement instead of pushing.

Feet First on Face

With arms extended, elbows straight, hands bent up at the wrist, wave hands from side to side, and push as described in "Head First on Back."

Diving

Swimming without knowing how to dive is like eating griddle cakes without syrup.

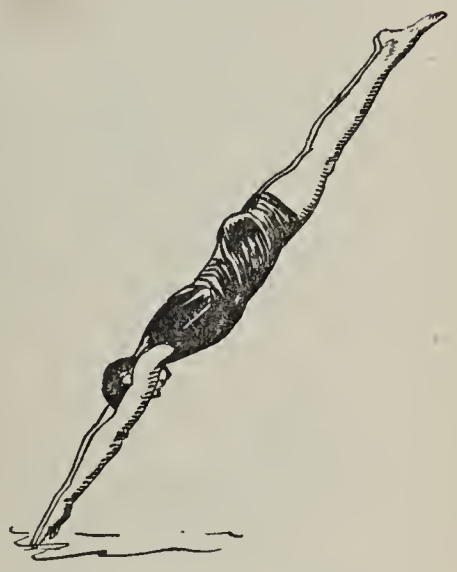
Really to enjoy the water and be thoroughly equipped for life saving every boy should be able at least to do the simple dives. At Futtepore, India, the Hindu boys jump from the old temple ruins, sometimes as high as eighty feet, into a deep well. The

jump is made feet first, right hand holding the nose, the left hand held close to the body.

Diving was introduced into England by the Swedes and was used only in a business way. They, like the Hindus, were skilful in high diving. The pearl divers of the Persian Gulf and around Ceylon can go to great depths, but the Americans were the first to take the honors in fancy diving.

The things needed in good diving are confidence, coordination or body-control, balance, the ability to think and act quickly, and patience. Many make the mistake of attempting the hard dives before learning the simple front or forward dive. As shown elsewhere, "Old Man Fear" must first be "licked to a finish." This can be done in the following manner:

First, jump feet foremost from the edge of the pool. After one or two trials, have the pupil crouch with knees bent, hands extended, thumbs locked and, with the head kept between the arms, fall forward into the water. Repeat this exercise with a springing movement of the legs, the body entering the water at an angle of about forty-five degrees. The tendency, for the beginner, is to lift the head and straighten the body as it nears the water, executing what is technically known as a "belly-whopper." This can be overcome by inclining the head forward between the extended arms.



Arthur McAleen, of the N. Y. A. C., a title holder and authority on diving, says: "In every dive, plain or fancy, straight or twisting, the head is the controlling factor, for its weight and position give it the power to direct the entire body while in flight. Not only may the angle of ascent or descent be altered by moving it up or down, right or left, but a vigorous motion is almost sufficient in itself to enable the diver to perform any desired stunt in mid-air, be it somersault or a twist. This should be remembered for it really is the secret of success in fancy diving."

After the beginner has developed sufficient confidence to dive from the water's edge, he may then be instructed to practice

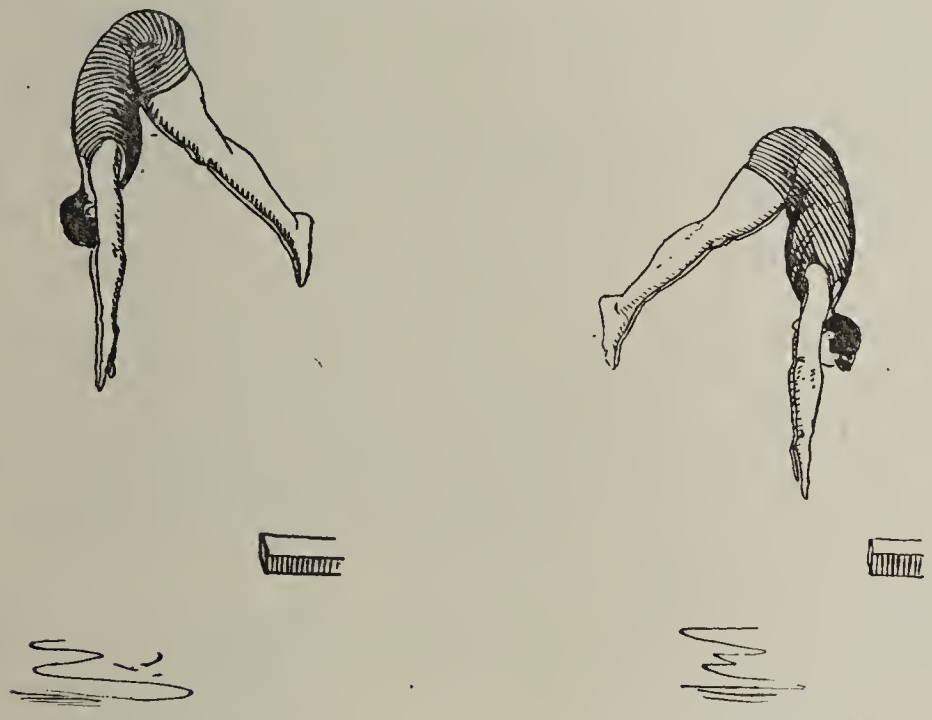
the plain front or forward dive from a height. To execute the front or forward dive properly, take the following position at the edge of the diving board or take-off: head up, chin in, chest out, hips back, feet together, toes just over and gripping the end of the board. Place hands on thighs just below the hips, raise high on toes, balance the body momentarily in this position, then slightly bend the knees and leap or spring up and out with head up and back arched, showing a slightly concaved line from the back of the head to the heels of the feet, the legs straight, feet extended, and toes pointed back. As the body begins to fall, the head is dropped, the arms are extended and, with fingers closed and thumbs locked, the body assumes very nearly a straight line and enters, or should enter, the water at an angle of about ninety degrees. The mistakes usually made are keeping the head up and landing flat on the chest or bending the head too quickly, which results in throwing the body over and striking the water with the back of the thighs or legs. The standing dive should be mastered before attempting the running forward or front dive. The running front dive is required in competition. The position of the hands and head is important in determining the depth of the dive. The head bent forward on the chest and hands bent sharply downward at the wrist will cause the body to descend. The raising of the head and hands sends the body to the surface.

The "run" should be a short one—three or four steps—alighting with all possible force with both feet on the extreme end of the board. In the running forward spring backward dive ("salmon," "comeback," "Dutchman") the take-off is made from one foot.

The various forward combination dives, known as the "swan," "swallow," "butterfly," etc., are now classed as plain forward dives. The development of the backward dive is the same as the forward. First, stand on the take-off with the back to the water and jump off backward, feet foremost, into the water. Next, take the fundamental position as described in the forward dive, but with the hands extended overhead, palms front, thumbs

locked, and back toward the water. Bend backward as though trying to touch the water; allow the knees to bend, keeping the head held back and between the arms, and push off. After a few trials, again take the position with hands below thighs and, with a quick up-heaving movement of the arms, head, and chest, leap or spring up and out and, as the body falls, bring hands together thumbs locked, the body entering the water in as straight a line as possible.

The remaining two dives, which complete the standard dives, are known as the "jackknives"—so named because while the body is in the air bent forward, with feet and hands touching, the legs are brought back into a line with the body, imitating closely the sudden opening of a knife blade.



Front jackknife *Back jackknife*

The forward or front jackknife dive may be executed either standing or with a run. A preliminary exercise of bending forward, touching the toes, and then suddenly bringing the body into an erect position, hands overhead, is an excellent one and should be practiced before attempting the dive.

Assume the fundamental position, then bend the knees slightly, leap up and out, but be careful not to land more than six feet from the end of the springboard as this is the distance

within which the body must enter the water. When the body in its upward spring reaches its highest point, it must bend quickly at the hips, touching toes, and, as it descends, the legs are snapped back and upward, feet together and toes pointed as in all head foremost dives. The head should be held between the extended arms, hands and fingers extended and thumbs locked, the falling body presenting the least resistance possible to the water. The speed acquired in the running front or forward jackknife is quite apt to take the diver beyond the six-foot limit; therefore the emphasis should be placed, not so much upon the run, as upon the jump down upon the board for the upward spring. The backward jackknife is the most difficult of the standard or set dives. Begin by taking the position as in the back dive, then jump backward, feet foremost. After a trial or two the pupil, in position with arms extended to the front horizontal, palms down, and thumbs locked, should spring up and far enough back to clear the board in the descent. The rest of the dive is the same as the forward jackknife.

LIFE SAVING

Having learned to swim by this method any boy is now able to do four things. First, he is able to help people who are drowning, and can save his own life. Second, he can develop a strong, clean, supple body. Third, he can have more real fun and recreation than the fellow who cannot swim. But best of all he can prevent drowning accidents and make others happy by teaching the "other fellow" to swim.

Now to learn the easiest, quickest, and best way to help anyone in danger in the water.

The Approach

As in learning to swim, confidence is the key to success.

If possible to slip off coat, pants, and shoes, do so. If not, as in the case of a person falling from steamer or boat, the rescuer, in order to be close to the victim, will save time by jumping in immediately and taking off his clothes while in the water. If the coat sticks, button tightly. Do not take off coat if wearing suspenders and no vest. The suspenders will cause trouble by sliding down.

If entering the water from the beach, run in knee-deep and then take a long dive and swim with an easy stroke, keeping the drowning person in sight, if possible. Where there are weeds, go slowly in the direction of the stream. If caught in grass, scull out; use hands only. If making the rescue from a height where the depth of the water is unknown, it is best to drop feet first.

In approaching the drowning person or persons speak quietly but firmly. If more than one is in danger, take the one in greatest distress. The object is to get the drowning person in some position for towing. The best position is on the back so that the person cannot grasp the rescuer. The different holds and their breaks, which will be described, should be practiced on land and in the water.

It is best to get behind the drowning person, but if not possible, reach out and grasp the nearest hand—keeping out of his clutches—tread water and pull straight to you, throwing the victim on the back in a floating position. Sometimes it may be necessary to dive under the person so as to grasp him from the rear. If an attempt is made to grasp the rescuer, stay away—let him fight the water.

Wrist Hold

If grasped by a drowning person, the grip most likely to be taken is the hold on the rescuer's wrists, thumbs up. This is easy to break by suddenly raising the arms, elbows out, then

Fig. 1

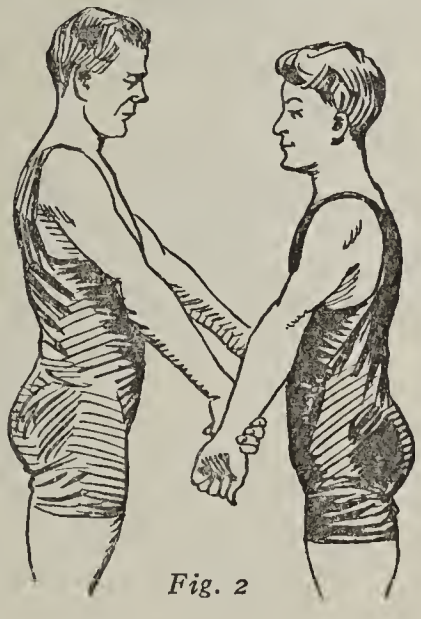


Fig. 2

quickly thrust hands in, down, and out (Fig. 2). The pressure against the drowning person's thumbs breaks the hold. In breaking away immediately grasp the person's wrist and turn him around on the back ready to tow. Do this in all breaks.

Neck Hold, Both Arms Front

Place right hand against person's right lower jaw and nose, left hand under his right elbow (Fig. 3). With a quick push against face, lift under elbow, and turn him on his back ready to carry; or, if necessary, raise elbows, hands down, fists closed, with thumbs straight and held stiff against close-clenched index finger, and jab thumbs down against person's lower ribs.

Fig. 3

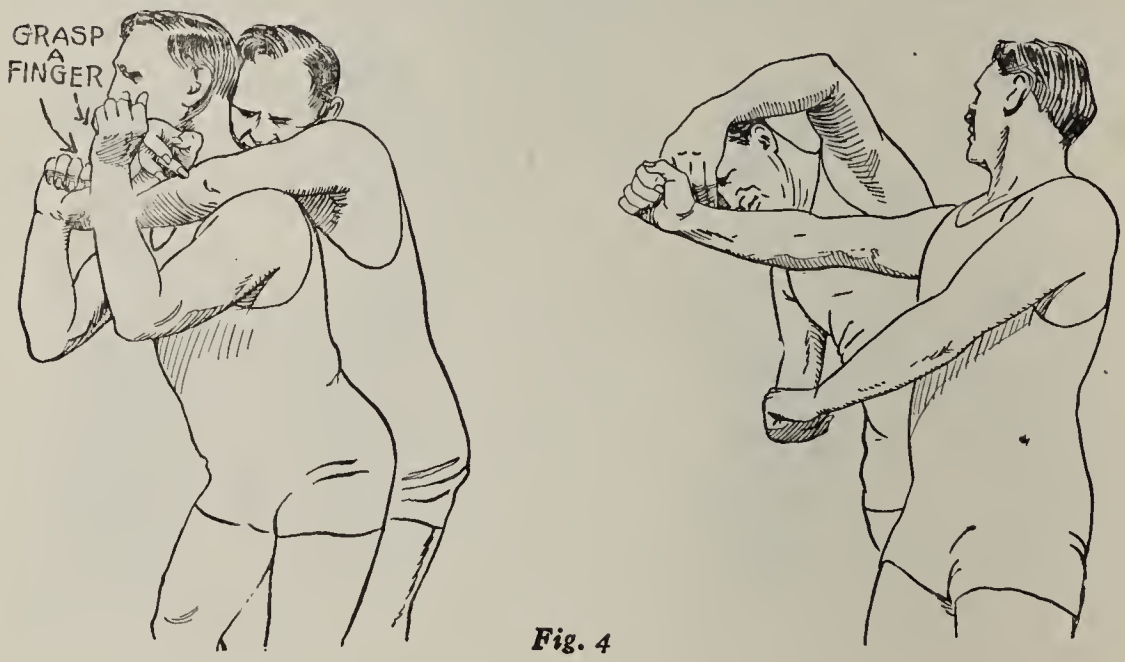


Fig. 4

Strangle Hold, Rear

Raise arms crossed, right over left. With right hand grasp person's right little finger. With left hand grab person's left little finger. With a quick jerk and bump back with buttocks pull person's arms wide apart and get behind and carry (Fig. 4).

Shoulder Hold, Front

Throw arms, elbows straight, sideways up and overhead, at the same time that you sink down, grasp right arm and get behind him, swim on back and carry him in floating position by two-hand hold.

Shoulder Hold, Rear

Throw arms sideways up overhead, duck, grab person, and swim as above. It is well to note that the thumb counter, *i. e.*, jabbing stiff thumbs against lower ribs, is very effective. Be careful in practice. Always follow a release by towing.

Towing a Person

Towing a person, of course, is not so dangerous as having to break the holds. One of the very easy methods is to grasp the person by the hair or clothing with one hand, towing him on the back, with one arm and kick for propulsion.

Head Carry

After a person is turned on back, tow by placing the hands over his ears, fingers extended down along the lower jaw, the head tilted slightly back (Fig. 5). Keep the water out of the ears—it helps to restore confidence.

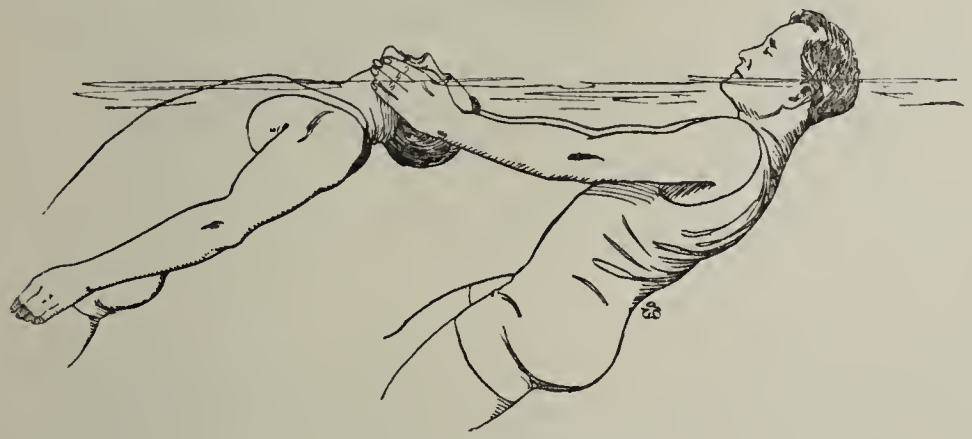


Fig. 5. Head Carry

Underarm Carry

When on back place the heels of the hands alongside the body in the armpits, the fingers extended (Fig. 6).

Fig. 6. Underarm Carry

Sidearm Carry

Turn drowning person on the back, by placing right hand on his right shoulder; left hand under his left arm to turn. Throw his left arm up, over, and across rescuer's left and extend right arm ready for the stroke, the drowning person being well up on the left hip of the rescuer (Fig. 7).

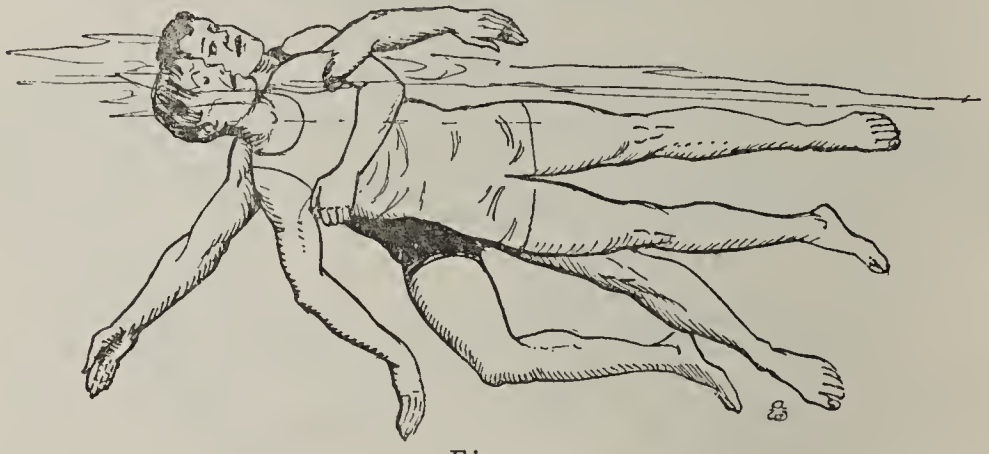


Fig. 7

Arm Carry

Rescuer slides left arm under subject's right arm, grasping arm at the biceps (upper arm), and pushes subject along on his back, lifted into floating position by rescuer's elbow under hip.

How to Help a Tired Swimmer

If swimming with a friend or near a person who gets tired, the tired person should be told to turn on his back and place his hands, arms extended, on the rescuer's shoulders, who swims forward, using the breast stroke. It is possible to carry or push a person a long distance in this manner, provided the rescuer swims easily and does not try to hurry (Fig. 8). Another way is the side-stroke assist or carry. The person to be helped should be behind the rescuer with one hand on his upper shoulder. The one helped can assist by using his free arms and legs. Never do this if the tired one is panicky.

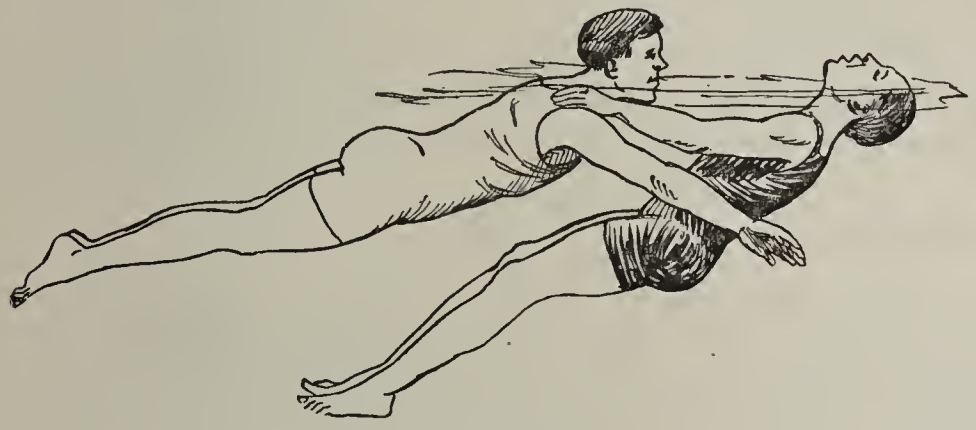


Fig. 8

When a Boat Capsizes

If there are a number of persons in the boat, don't attempt to swim ashore with any except those who have gone down. Direct or help others to side of boat. Tell them they are in no danger and to hold on. Dive for person who went under. If he is unconscious when brought to surface, take him to shore and, if others are present to perform first aid, give directions for Schafer method. Return, and if the boat is not too large, grab painter or rope and tow boat, with persons hanging on, to shore. This is not as difficult as it sounds. If the boat is too large it is better to use anything that may be floating near by, such as an oar or a plank.

Recovering a Body from the Bottom

When a body has recently sunk to the bottom, its location may be known by the air bubbles which will appear on the sur-

face. In still water the bubbles come straight up. In running water they will be slanting in the direction of the current, so that the body will be found higher up the stream than where the bubbles appear. Grasp the body by the hair at back of the head, slack of coat or shirt at the shoulders, or by the armpit. After securing the body, give a vigorous push and swim upwards with a back stroke, and when near surface, change grip to ordinary rescue hold, as described.

To Go to Bottom

Start to swim in a forward motion on the surface, tuck in the chin, throw the legs out of water for weight, and with eyes wide open, take choppy breast strokes to the bottom. Your diving rudder is your head. Keep the hands well advanced to prevent collision with obstructions or bumping into the mud or rocks.

Resuscitation

Death by drowning is due to suffocation and shock, not by water entering the lungs. After opening the bodies of many drowned persons, doctors have seldom found more than a teaspoonful of water in the lungs of each body. The water commonly supposed to come from the lungs really comes from the stomach.

It was not until 1804 that people became interested in life saving. Before that time it was a crime to take an unconscious person out of the water. Up to 1858 many foolish and really cruel methods of resuscitation were used, among them being the blowing of smoke into the intestines to make the body warm. Cutting a blood vessel and letting the blood escape was another. Blowing air into the lungs with a hand bellows was also practiced. Dr. Hall, in 1858, originated a system which was used until several years later. During the Civil War Dr. Sylvester's method was declared a better one, but in recent years this has given way to the Schafer, or "face down method." This is the method recommended and which will be described (Fig. 9).

The next thing to do after getting the person to shore and stopping any arterial bleeding, is to send or telephone for a doctor, briefly describing the accident. If others are present

have them do this. If alone and not near a telephone, go ahead quickly as follows:

After getting the unconscious person ashore on a flat surface, lay him face downward, arms extended above the shoulder level. Using the forefinger, clean any sand, dirt, grass, or mucus from the person's mouth. Pull the tongue forward. In this position fluids will drain from the mouth.

Fig. 9

Artificial Breathing

If on a shelving beach, remember to lay the person with head toward the water. Place flat on chest. If coat, towel, or anything which will serve as a roll is handy, place just below the chest. Turn the person's head to the left, resting on back of right hand, face and hand pointing in the same direction. The person's left arm is extended above the shoulder level.

Be sure that the tongue is forward and then kneel astride the person so that the knees will be at his hips. Place the hands on the person's back, the thumbs held against index fingers. With the fingers pointing down over the lower ribs, lean forward and steadily press downwards, as you slowly say *"Out goes the water."* Then suddenly release the pressure without taking the hands wholly from the body, and rest as you say, *"In comes the air."* Repeat this forward and backward movement twelve times a minute, until natural breathing is restored. This may take an hour or more, but don't give up. Keep at it. Persons have been brought back to consciousness after four hours of hard work on the part of the rescuer. Remember that apparently drowned persons who have been under water five or ten minutes

have been resuscitated after the use of this method. So don't get discouraged. Don't give up. To discover signs of returning consciousness lift eyelids. If the dark spot (pupil) in the eye gets smaller when exposed to the light there is still life in the body.

Keep up the respiration movements until the person begins to breathe. The legs and arms should be rubbed briskly toward the heart. This will help restore the circulation. Cover well with blankets, placing well-protected hot bottles, bricks, or water bags at the feet, pit of stomach, and under the armpits.

Give hot drinks after person begins to breathe and not until then.

Give no whiskey or alcoholic stimulant except when ordered to do so by a doctor.

Give the person plenty of air and quiet, and the recovery will be rapid.

SECTION 2

Young Men's Christian Association, A. L. N. A.
National Swimming Records, 1919

Event	*Time or Distance*	*Name*	*Location*	*Date*
20 yd. swim	8 1/5 s.	Clarence Lane	Honolulu, Hawaii	June 24, '16
25 yd. swim	11 4/5 s.	Frank S. Gillman	St. Paul, Minn.	Mar. 18, '16
40 yd. swim	19 4/5 s.	John Kelii	Honolulu, Hawaii	1919
50 yd. swim	24 2/5 s.	Clarence Lane	Honolulu, Hawaii	1919
50 yd. swim, back stroke	30 s.	Harold Kruger	Honolulu, Hawaii	1919
50 yd. swim, breast	34 s.	G. E. Reddall	Brooklyn, N. Y.	Mar. 25, '15
75 yd. swim	39 3/5 s.	Clarence Lane	Honolulu, Hawaii	1919
100 yd. swim	56 4/5 s.	Clarence Lane	Honolulu, Hawaii	1919
100 yd. swim, on back	1 m. 11 s.	Harold Kruger	Honolulu, Hawaii	1919
100 yd. swim, breast	1 m. 18 4/5 s.	William Fox	St. Paul, Minn.	Mar. 24, '16
150 yd. swim, back stroke	1 m. 53 1/5 s.	Harold Kruger	Honolulu, Hawaii	1919
200 yd. swim	2 m. 12 2/5 s.	Duke P. Kahanamoku	Honolulu, Hawaii	1919
200 yd. swim, breast	2 m. 34 3/5 s.	Lawrence F. Snow	Boston, Mass.	Apr. 18, '17
220 yd. swim	2 m. 29 s.	Duke P. Kahanamoku	Honolulu, Hawaii	1919
400 yd. swim	5 m. 55 2/5 s.	Robert Muir	Boston, Mass.	Apr. 18, '17
500 yd. swim	6 m. 13 1/5 s.	Duke P. Kahanamoku	Honolulu, Hawaii	1919
Plunge and underwater	298 ft. 6 in.	Harry Broadman	St. Paul, Minn.	July 1, '16
Plunge and underwater	267 ft.	G. E. Reddall	Brooklyn Bedford	Dec. 17, '14
Underwater swim	240 ft.	C. E. Cooley	Memphis, Tenn.	Dec. 28, '16
50 yd. breast stroke	34 s.	G. E. Reddall	Brooklyn Bedford	Mar. 25, '15
100 yd. breast	1 m. 18 2/5 s.	Robert Muir	Boston, Mass.	Apr. 18, '17

100 yd. breast	1 m. 18 4/5 s.	William Fox	St. Paul, Minn.	Mar. 24, '16
20 yd. on back	12 4/5 s.	R. M. Darnell	Memphis, Tenn.	Oct. 21, '16
100 yd. on back	1 m. 29 s.	B. F. Taber	St. Paul, Minn.	Feb. 20, '15
100 yd. on back	1 m. 13 2/5 s.	Harold Kruger	Honolulu, Hawaii	June 24, '16
Plunge for distance	64 ft.	Carlton P. Schaub	St. Paul, Minn.	Apr. 5, '16
80 yd. relay	42 4/5 s.	R. V. Sims R. M. Darnell D. Boynton E. W. Wood	Memphis, Tenn.	Oct. 21, '16
400 yd. relay	3 m. 53 4/5 s.	Harold Kruger Clarence Lane John Kelii George Cunha	Honolulu, Hawaii	June 24, '16
400 yd. relay	3 m. 44 4/5 s.	Duke P. Kahanamoku George Cunha Clarence Lane Harold Kruger	Honolulu, Hawaii	July 22, '16
500 yd. relay	4 m. 43 3/5 s.	John Kelii Duke P. Kahanamoku Clarence Lane George Cunha Harold Kruger	Honolulu, Hawaii	July 22, '16

World's Swimming Records

	Made in Tank		*Made in Open Water*	
Distance	*Holder*	*Time*	*Holder*	*Time*
50 yds.	D. P. Kahanomoku (A)	23 m. 2/5 s.	D. P. Kahanamoku	23 m.
100 yds.	P. McGillivray (A)	54	D. P. Kahanamoku	53
100 meters	Norman Ross (A)	1.01	D. P. Kahanamoku	1.00 4/5 s.
120 yds.	P. McGillivray (A)	1.08 2/5 s.		
150 yds.	H. E. Vollmer (A)	1.29 4/5 s.	C. Healy (Aus)	1.34
200 yds.	Norman Ross (A)	2.06 4/5 s.		
200 meters	Norman Ross (A)	2.21 3/5 s.		
220 yds.	Norman Ross (A)	2.20 1/5 s.	P. McGillivray (A)	2.21 1/5 s.
300 yds.	Norman Ross (A)	3.16 3/5 s.	B. Kieran (Aus)	3.31 4/5 s.
400 meters	Norman Ross (A)	5.16 2/5 s.	L. Langer (A)	5.17
440 yds.	Norman Ross (A)	5.08 4/5 s.	L. Langer (A)	5.17
500 meters	H. E. Vollmer (A)	6.51 3/5 s.		
500 yds.	Norman Ross (A)	5.53 2/5 s.	L. Langer (A)	6.11 2/5 s.
880 yds.	B. Kieran (Aus)	11.11 3/5 s.	H. Taylor (E)	11.25 2/5 s.
1000 yds.	B. Kieran (Aus)	12.52 2/5 s.	L. Langer (A)	13.07 2/5 s.
1320 yds.	C. M. Daniels (A)	17.45 4/5 s.	W. Longworth (Aus)	17.42
1 mile	B. Kieran (Aus)	23.16 4/5 s.	G. R. Hodgson (C)	23.34 1/2
2 miles	Geo. Read (Aus)	54.54	W. Longworth (Aus)	51.32

National Interscholastic Records

Event	*School*	*Holder*	*Time*	*Date*
800 ft. relay	Poly. Prep., Brooklyn		2 m. 40 s.	Jan. 28, '91
50 yds.	Berkeley-Irving	Leo Giebel	26 1/5 s.	"
100 yds.	Poly. Prep., Brooklyn	Jelliffe	1 m. 2 s.	"
500 yds.	Berkeley-Irving	Leo Giebel	6 m. 48 2/5 s.	"
Fancy diving	Mercersburg	Reid		"
Plunge for distance	Western H. S. (Detroit)	Schuredt	79 ft.	"

National Intercollegiate Records

40 yds. (20)	Chicago U.	W. C. Earle	19 s.	Feb. 21, '16
50 yds. (25)	Yale U.	S. E. Hoadley	25 1/5 s.	Dec. 11, '14
100 yds. (25)	Columbia U.	Herbert Vollmer	56 2/5 s.	Feb. 18, '16
220 yds. (100 ft.)	Princeton U.	Eben Cross	2 m. 31 s.	Feb. 20, '14
440 yds. (20)	Northwestern U.	R. Simonson	5 m. 47 4/5 s.	Mar. 17, '16
Relay—160 yds. (20)	Chicago U.	Earle, Meine, O'Connor, Pavlicek	1 m. 20 s.	Feb. 21, '16
200 yards (25)	Yale U.	Ferguson, Schleat, Mayer, Thomas	1 m. 42 1/5 s.	Feb. 28, '17

800 ft. (100 ft.)	Yale U.	Mayer Sumners Marr Roberts	2 m. 30 s.	Feb. 27, '14
400 yds. (20)	Yale U.	Mayer Ferguson Rosener Schleat	4 m. 1 2/5 s.	Apr. 23, '16
Back stroke—150 yds. (20)	Chicago U.	C. B. Pavlicek	1 m. 50 2/5 s.	Feb. 22, '16
Breast stroke—200 yds. (20)	Wisconsin U.	Herbert Taylor	2 m. 45 2/5 s.	Mar. '15
Plunge for distance 78 ft.	Penn.	Carl G. Lehman	1 m. time limit	Feb. 7, '16
Plunge for speed (60 ft.)	Chicago U.	J. C. Redmond	18 4/5 s.	Feb. 26, '16
100 yds. on back		G. Richard Dungan (A)	1 m. 12 1/5 s.	
150 yds. on back		H. J. Hebner (A)	1 m. 49 3/5 s.	
Breast stroke—200 yds.		M. McDermott (A)	2 m. 38 2/5 s.	
Plunge for distance 82 ft. 7 in.		W. Taylor (E)	1 m. time limit	
106 yds. 2 ft.		E. P. Swatek (A)	55 s.	
Relay—5 men 500 yds.		A. C. Raithel Wm. Vosburgh H. J. Hebner P. McGillivray D. L. Jones	57 2/5 s. 55 s. 55 1/5 s. 58 s.	

CHAPTER XI

CAMP LIFE AND RECREATION

H. W. Gibson

Section 1. Camping and Campcraft for Boys
Section 2. Kinds of Fire and Their Uses
Section 3. The Sheltering Lean-To
Section 4. What and How to Cook
Section 5. Hikes and Mountain Climbing
Section 6. Knots that Every Boy Should Know

SECTION 1

Camping and Campcraft for Boys

Just as soon as the green begins to creep back into the grass and the buds start to swell, threshing in the blood of a boy also begins to assert itself by a kind of restlessness and a longing for freedom, a desire to get out in the open where the fresh breezes blow, where the air is pure, where there is room and range to stretch, and where he will have relief from the stuffiness of man-made houses. Naturally, the first person to whom he expresses this feeling is his friend and leader. "Let's go camping," says Boy. "All right, let's," replies Man. Then follow hours and days of indescribable delight in planning and of anticipation. "Where shall we go?" is a question more easily asked then answered. Whether the camping trip is for only a week-end or of longer duration, these several things must be carefully considered: the choice of a site where pure water for drinking and swimming is

abundant, where wood and food are easily obtainable, and where there are safe sanitary conditions.

Typhoid is an enemy often found lurking in most attractive looking waters. Not every stream that sparkles is pure. Keep an eye upon the drainage. Make sure that the stream of water or pond is far away from all possible pollution from barnyard and village drainage. Brackish and still pools of water are prolific breeding-places of mosquitoes. Always boil the drinking water, if there is the slightest shadow of a doubt. There is as much need of "safety first" in the matter of drinking water as there is in crossing a city street or a railroad track. Both have "killing" possibilities. War fevers do more damage than bullets. Indians and experienced campers always find pure water and then camp, the "plebes" always camp and then hunt for water. Avoid drinking water rapidly when hot and tired. Drink sparingly and slowly. Insist upon each camper's using his own drinking cup, which should be either the collapsible type or the regular camp variety of white enamel, about four inches in diameter.

"A swimmin' hole" is a necessity as well as a joy, for a camp without swimming facilities would prove a failure. Have it definitely understood, however, that no member of the party is to go into the water except at the stated time and place. This should be a rule as unchangeable as the rules of the Medes and Persians. Always swim before eating and never after eating, unless at least from three to five hours have elapsed. A good time for swimming is around eleven or twelve o'clock in the morning. A good swimmer should patrol the shore and have oversight of the swimmers during the swimming period. Too much swimming, especially in fresh water, accounts for the listlessness and inactivity of many campers. The body gives off heat every minute it is in cool water, and also when exposed wet to the breezes; and heat is life. From twenty to thirty minutes is sufficient time for a fresh-water swim. A dip on rising in the morning will freshen and invigorate, but make sure that it is a dip and not a swim, as the body is not in condition to meet the exertion demanded in swimming. A good rub down with a bath towel will put every boy in the pink of condition and forestall "grouchiness."

In pitching your tents always select high ground where there is natural drainage, so that there will be no need of ditching. If the camp is to be for two weeks or longer, use wall tents, 12 x 14 feet, for sleeping purposes. A tent of this size will accommodate from six to eight persons. For overnight or week-end camps use the "dog" tents or make shacks. A good description of how to make shacks is given in the handbook of the Boy Scouts. In sleeping upon the ground dig a "hip hole," a trench about midway of the bed, spread the rubber poncho upon the ground so that the "hip hole" is in the right place, lie down with a blanket spread over you, roll on your right side and tuck blanket under you, then roll over on your left side and tuck remaining part of the blanket under you, then raise your feet and tuck the bottom of blanket under your feet. Another way is to make a sleeping-bag by folding the blanket lengthwise and pinning the side and bottom with big blanket safety-pins, then crawl inside for a good nine hours' sleep. Always put a rubber poncho or oilcloth or paper on the ground to prevent suffering from dampness. A thatched bed of pine or balsam is both fragrant and restful. When sleeping on a canvas cot or bunk, be sure you have as many blankets under as over you. A common mistake of campers is the "piling" on of blankets to keep warm. Sleep is Nature's greatest restorer, and "rough house" at night should have no place in a camp.

Reveille

Sanitation must be insisted upon. Garbage should be buried or burned, including tin cans, for there is always a small amount of food remaining in the can which will attract flies. Carelessness will cause disagreeable as well as dangerous results. Latrines or toilets should be established far enough away from the camp and where the drainage is safe, and yet within easy reach. Prohibit the pollution of the surface of the ground. Chloride of lime or a solution of Sulpha-Napthol should be used frequently about the toilets, or the excreta covered over with earth. This is the old Mosaic rule laid down in Deuteronomy 23:12–14.

All food must be protected from flies and exposure to the heat and sun. Dishes and pots and pans should be kept scrupulously clean. Wood ashes or sand soap will do the work when aided by

a generous supply of muscle. Cleanliness first, last, and always, should be insisted upon if health is to be conserved. Have a place for everything and keep everything in its place. Every camper should be assigned a job if the camp is to be cheerful and happy. Shirks and drones always breed discontent.

If the department of the boys' interior is to be in a state of peace and not engaged in rebellion or revolution, it will depend almost entirely upon the "eats." Stomach rebellion is caused by badly cooked food and irrationally balanced meals. Make out the menu before starting for camp and have each meal carefully balanced, so that the proper quantity and division of proteids, fats, and carbo-hydrates necessary for his growth and health is given each boy. This is not "high-brow" advice but common sense, and in the interest of giving boys a physical square deal. Every camp director should secure from the U. S. Department of Agriculture the Farmers' Bulletin No. 142, "Principles of Nutrition and Nutritive Value of Food." Also from the American School of Home Economics, 505 West 69th Street, Chicago, Ill., Bulletin No. 36, "Food Values" (10c) and No. 34, "Five Cent Meals." A very good book is "Camp Cookery" by Horace Kephart.

It is much better to secure a professional cook if the camp is conducted for two weeks or longer. For overnight hikes or week-end camps, meals can be prepared by the boys.

Discipline, tempered with friendliness, is the medium through which every camper is assured of a square deal. Justice is a quality easily recognized by a boy in a *Leader*. Have no favorites. Encourage boys to measure up to their best. Make it hard to do wrong and easy to do right. Self-discipline and self-government must have paternal oversight, if the benefits of democracy are to be safeguarded from the intoxication of full freedom. Hear both sides of every question and of wrongdoing before taking decisive action. A boy when asked why he liked his *Leader* replied, "Because he makes me do things." He admired this kind of service-inspiring leadership.

A camp will best fulfil its purpose when there is a definitely planned daily program, something like the following "order of the day":

A. M.

6:30	Reveille, Flag raising
6:40	Setting up or pajama drill
6:50	Dip (5 minutes)
7:15	Breakfast, followed by the announcements and prayers Morning devoted to camp duties, games, instruction, etc.
11:00	Swimming period
11:45	Inspection
12:00	Dinner

P. M.

1:00	"Siesta"
2:00	Games and afternoon sports
5:45	Colors or lowering the flag
6:00	Supper Evening given over to a camp fire, entertainments, story telling, etc.
9:00	Taps. A good nine-hour sleep

A well ordered day usually means a happy day.

"What shall we take?" Well, that depends upon the initiative, resourcefulness, and grit of each camper. The usual tendency is toward taking too many unnecessary things. The list of cooking utensils should include a good-sized frying pan, a good griddle for making "pancakes," a small-sized washboiler for hot water and in which to cook soup, two round boilers for cocoa and vegetables, two water pails, a dipper, two big stirring spoons, one long-handled fork, two pancake turners, a good can opener and cork screw, one bread knife and a good carving knife, one big dish pan, one eight-quart milk can, two paring knives, two dish towels, four drying towels, salt and pepper shakers, white enamel (Swedish make) plates, cups, saucers,

serving dishes, butter dish, cheap knives, forks (four pronged), spoons. *Do not forget safety matches.* Individual taste and needs will determine what else to add to this list.

The personal outfit should consist of a strong khaki suit like the Boy Scout suit with an extra pair of "shorts," a change of underwear, flannel shirts, extra stockings, sweater, poncho, two army weight blankets, bathing suit, comb and brush, tooth brush and powder, soap in aluminum box, pencil, paper, envelopes, stamps, needles and thread, pins including safety pins, handkerchiefs, pocket knife, Bible, and a good disposition.

Take enough time each day for the development of the soul or spiritual life. Nature is devout and under such environment boys readily respond to the appeal as well as the challenge of the Christian life. Twenty minutes after breakfast or supper spent in discussing personal problems, Christian standards, and methods of service are golden minutes in man-making. Two booklets, "Bible Studies for Boys' Camp" and "Five Minutes a Day" (Association Press) will be found full of suggestions for discussion. "Some Outdoor Prayers," by George A. Miller is a little book, but big with helpful thoughts.

A book like "Camp and Outing Activities" by Cheley and Baker, published by Association Press, will be found of value in planning the "doings" of the camp. "Camping for Boys" is another book which camp leaders have found suggestive and helpful. Best of all, however, is to make a scrapbook of your own. In this paste all articles found in magazines, newspapers, and books on the subject of camping, arranging them in topical order so that in planning for a meal you will be able to turn to the pages on "Food" and find the thing desired. Other topics such as "Games," "Stunts," "Swimming," "Nature Study," and "Sanitation" will suggest valuable camping hints.

No method of bringing boys close to their *Leader* has yet been devised equal to camping. There is a kind of "togetherness" in living in the open that is not obtainable in man-made houses. A week or week-end spent by *Leader* and boys in this fashion will cement friendships, open up confidences, reveal spiritual longings, and make virile character. For, after all, the real objective of camping is to bring God, through His wonderful works in a very real way and in a natural manner to the boy. Virile Christian

character is made through the camping process in a way known only to those who have tried it out.

Note

For more extensive treatment of this material, see books listed on page 318.

SECTION 2

Kinds of Fire and Their Uses

One of the important things about camping is a campfire. There are two kinds of campfires, the "warming up" fire, and the "cooking" fire. Of course there are others, such as the "smudge" to drive away mosquitoes, and the "friendship"—the kind you just like to sit around and talk or silently watch the flames shape themselves into fantastic forms. The most useful since man discovered fire is the cooking fire—flames for the pot and coal for the pan.

Select a sheltered and safe place to build your cooking fire, where no wind can blow it out or into the surrounding dry brush, ascertain the direction of the wind, and then build your fire so that the smoke will not blow into your face when you are doing the cooking. Next in importance is the wood. Certain kinds of wood, such as hickory, oak, beech, birch, hard maple, ash, elm, locust, longleaf pine, and cherry, have fairly high heat values, and laboratory tests show that one cord of seasoned wood of these species is equal to one ton of good coal. Short leaf maple, hemlock, sycamore, cedar, poplar, Norway pine, cypress, basswood, spruce, and white pine, have a comparatively low heat value. These woods ignite readily and give out a quick hot flame, but one that soon dies down. The principal disadvantage of the resinous pines is their oily black smoke.

The woodsmen of British Columbia have a wood-chopping trick that keeps nicks out of the axe blade. When chopping the wood, instead of laying it on a block or on the ground where you have a chance to miss and put a nice nick in your axe, just stand it on end, holding it with the left hand at a convenient angle and strike a glancing blow into it, turning the branch till you have

gone all the way round. It will then break with a blow from the head of the axe and you have a nice feathery end to catch fire easily (Fig. 1).

Woodcraft boys make what are called "fuzz-sticks" or "fire-lighters," by taking a dry, resinous stick about an inch thick and shaving it with a good sharp jackknife into thin slivers, which remain on the stick (Fig. 2). Three or four of the "fuzz-sticks" will insure the starting of a fire.

Gather dry twigs and dead branches and plenty of birch tinder. When the wood has been gathered and prepared, you are ready to begin building the fire. Time is saved by having everything on hand and within reach. Haste always wastes time in making a cooking fire.

The simplest and handiest all-round cooking fire is that made of two green logs laid parallel on the ground. Level off the top with an axe. Place them a few inches apart, so that a frying pan or coffee pot can rest upon both. Between the logs scrape a trench about six inches deep (Fig. 3). In placing the wood in the trench, pile it in such a way that allows plenty of air space. Place several "fuzz-sticks" first, then dry twigs, and keep adding heavier wood as the fire progresses. When it is blazing well, start your water boiling. For broiling, or frying, or baking, scrape the hot ashes and live coals evenly, and you will have a wonderful fire for such purposes. Never add more fuel just before putting on your stuff to cook. Avoid too big a fire. Remember that you do not cook with flames, but with hot coals, which give a greater heat and one that is steady. Never use soft wood if you can get hard wood. Soft wood is smoky, covers the food with flaky soot, and produces a ruffled temper. A windbreak or fender will add to the convenience during chilly or windy weather (Fig. 4).

A simple camp-fire crane that may be used in connection with any kind of an open fire is shown in Fig. 5. Cut sapling of hard wood about three inches in thickness. Drive sapling firmly into ground.

A common method of building a cooking fire is to take flat stones and put them together in a sort of fireplace. Grates may also be purchased for outdoor cooking. Toasted bread just reaches the right spot. A useful toaster can be made from flexible

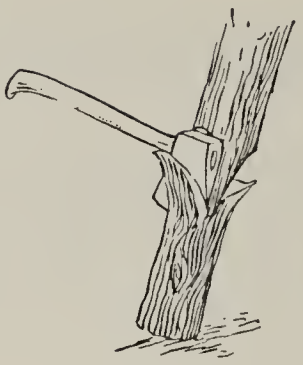


Fig. 1

Fig. 2

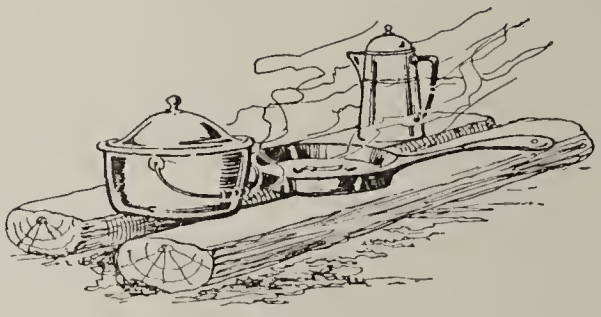


Fig. 3

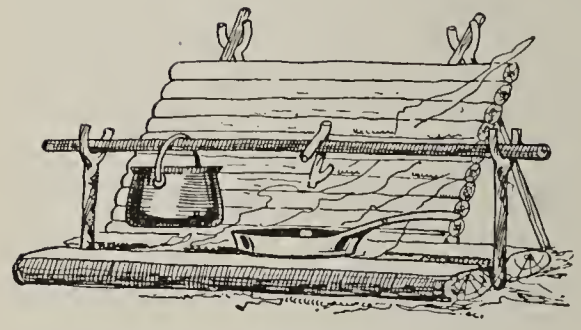


Fig. 4

Fig. 5

Fig. 6

Fig. 7

withes bent and tied in the shape shown in Fig. 6. Bread will toast better when placed before glowing embers. Turn the bread frequently.

"Friendship" camp fires are usually built so big that you cannot get near enough to enjoy the friendship of the fire. To waste wood is just as unpatriotic as to waste food. A comfortable, sociable, and economical camp fire is the one used at the Council Circle of the Woodcraft League. It is built square and about two and one half feet high, the bottom stick about three feet long; the rest shorter and smaller. Fuzz-sticks, chips, and small wood to light it can be put either under or on top of the second layer. It should be drawn in toward the top, so as to burn without falling apart. Use dry, seasoned wood so that a bright blaze is secured and maintained (Fig. 7).

Making Fire without Matches [1]

There are three distinct ways of building a fire without matches. The simplest, but most difficult, is by the rubbing of two sticks or hand drills together; the second, by use of a bow drill, which is an improvement over the first, in that it gives a more rapid movement and increases the friction; and, third, by the use of flint and steel. Every good camper should be able to accomplish all three, and by all odds the last two.

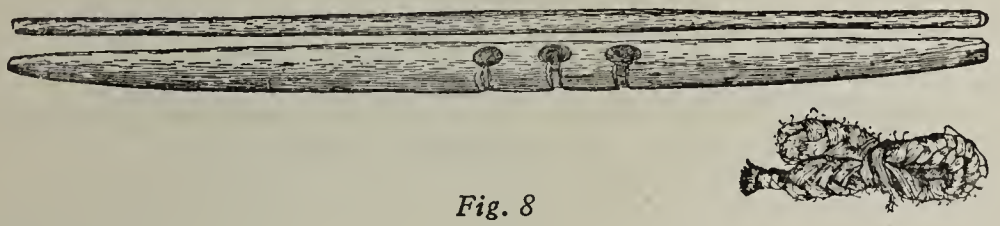


Fig. 8

Fig. 8 is a good illustration of the simplest sort of fire drill, one used by the Indians of Washington and the Northwest. Following is a description of the set, quoted by special permission from the Smithsonian Report, "Firemaking Apparatus in the United States National Museum," by Dr. Walter Hough:

"It consists of a hearth, two drills, and a slow match. The hearth is a rounded piece of cedar wood; opposite the fire-holes

[1] Reprinted by permission from "Camp and Outing Activities," by F. H. Cheley and G. Cornelius Baker, copyright, 1915, by the International Committee of Young Men's Christian Associations.

it is dressed flat, so as to rest firmly on the ground. There are three fire-holes with wide notches. The drills taper to each end, that is, are larger in the middle (Fig. 8). The powder, a fine brown dust, collects at the junction of the slot and fire-hole, where they form a lip, and there readily ignites. This side of the hearth is semi-decayed. No doubt the slots were cut in that side for the purpose of utilizing this quality. The drills are bulged toward the middle, thereby rendering it possible to give great pressure and at the same time rapid rotation without allowing the hands to slip down too rapidly, a fault in many fire drills. The slow-match is of frayed cedar bark, about a yard long, folded squarely together, and used section by section. Mr. Willoughby says:

"'The stick with three cavities was placed upon the ground, the Indian kneeling and placing a knee upon each end. He placed one end of the smaller stick in one of the cavities, and, holding the other end between the palms of his hands, kept up a rapid, half-rotary motion, causing an amount of friction sufficient to produce fire. With this he lighted the end of the braided slow-match of cedar bark. This was often carried for weeks thus ignited and held carefully beneath the blanket to protect it from wind and rain.'

"Fire is easily produced with this set. It takes but a slight effort to cause a wreath of aromatic smoke to curl up, and the friction easily grinds off a dark powder, which collects between the edges of the slot. When this ignites it drops down the slot in a little pellet, and falls upon the tinder placed below to receive it. Both drill and hearth are eighteen inches long."

Fig. 9 shows a second set, reproduced from the same book, and shows the method the Indians used to keep the precious

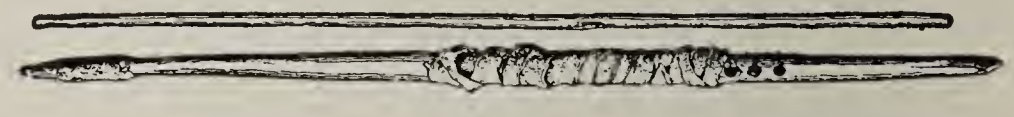


Fig. 9

Fig. 10

hearth dry. The entire length is carefully wrapped with a strip of taut buckskin.

Fig. 10, also from Dr. Hough's report on "Firemaking Apparatus in the United States National Museum," shows an interesting feature. The handle by which the hearth is fastened to the Indian's belt also shows the spliced drill, the hardwood point spliced into a favorite or especially desirable handle.

Probably when the simple hand drill was used, the grinding of the powder was facilitated by adding a small pinch of fine sand to the bowl of the hearth.

The next method is that of intensifying the friction by means of using the bow drill. This is the more common method, and is found in general use, from the Indians of Alaska—who use bone instruments, except the hearth, which is usually white pine—to the Indians of South America. The principal law, however, is the same in all; only the material used changes with the locality. See Fig. 11.

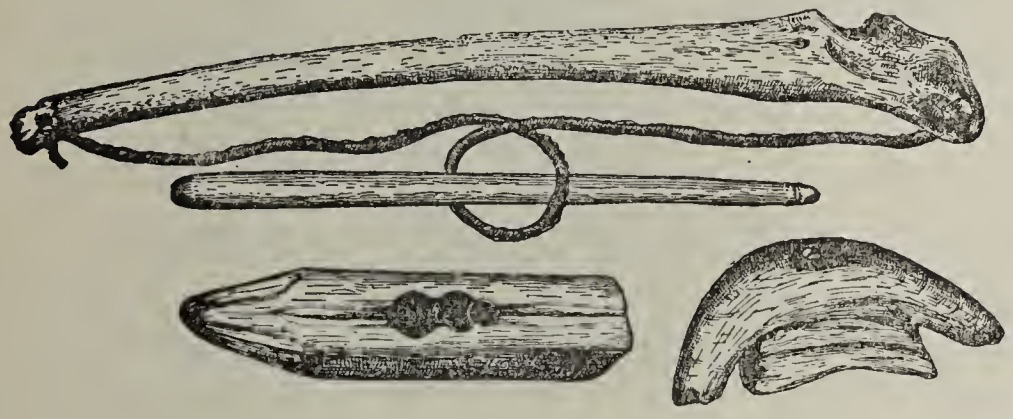


Fig. 11

Ernest Thompson Seton, the master of woodcraft, declares that the best results are obtainable by having the hearth and the drill of the same material. But others are not so agreed. There is one thing certain, however: the wood used must not be too hard nor too soft, but hard enough to make very fine brown grindings, and soft enough to make a sufficient quantity to hold the spark. The tinder and carefully prepared pile of slivers should be ready before the drill is set going.

No matter how carefully the process is described, you will never be able to make a fire without practice and personal experimentation. Study the cuts here reproduced, then adapt what you have to the principle. You are sure to succeed if persistent.

Third method, building fire with a flint and steel. Note carefully the implements in Fig. 12. To be successful you will need a select piece of absolutely dry punk wood, the longer the fibers the better, a piece of hard steel fashioned so as to get a good

Fig. 12

striking surface without injury to the hand (a large, stout jackknife can be made to work well), a selected piece of flint—it will take much experimenting to find just the right piece, but when found you have a prize. A small tin can may be used for a tinder horn, but the tip end of a cow's horn is better and safer. Prepare the tinder, place it in the horn, then dash the sparks into it. When a tiny bit of smoke rises, blow carefully into a flame and apply the burning tinder to the twigs previously arranged for the

fire. Any boy can become expert in this little trick with persistent effort. If not successful, ask some neighboring old-timer to come in and aid you until you see how it is done.

SECTION 3

The Sheltering Lean-To

The most common of all shelters is the lean-to. It is easily constructed and when properly thatched is quite rainproof. By studying Fig. 13 any group of boys can erect a shelter that will be a protection and a rendezvous for many pleasant occa-

Fig. 13

sions. Select two trees, from six to ten feet apart, with branches about six feet from the ground. If the party is going to remain for several nights or if the place is to be a weekly meeting spot, a double shelter as shown in Fig. 14 should be erected. This will accommodate a good sized group and with a "friendship fire" in the center will gratify the desire for outdoor life of real boys.

A lean-to is a warm, comfortable place when there is a fire burning in front. Its action is like that of a reflecting baker of camp cookery fame; it collects all the straying heat rays that come its way and reflects them upon the forms of the sleepers under its sheltering roof.

The roofing material will depend largely upon the locality. The best materials are balsam, hemlock, spruce, and white pine. If none of these are available, the branches of the maples, the

oaks, the chestnuts, and the birches may be used. Use the largest leaves. When using the foliage of these trees, the roofing should be put on much thicker than when evergreens are used. When thatching, start at the bottom and work up. Waste of wood in America is becoming a serious matter and shelters or lean-tos should be erected only as a necessity. Hacking of trees, skinning the bark from the birches, and cutting young saplings with no

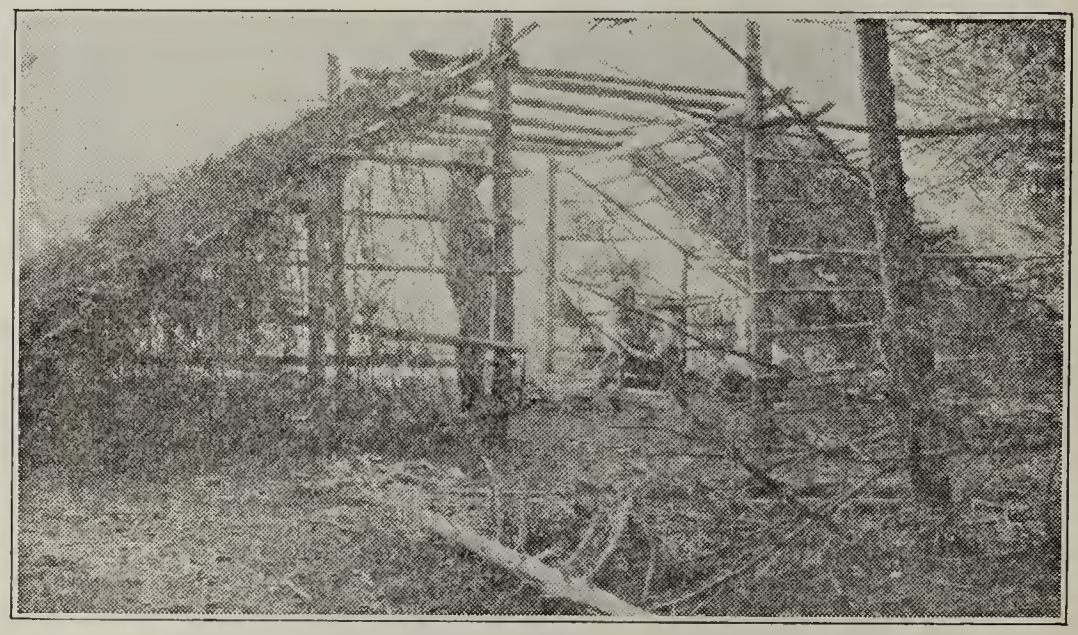


Fig. 14

other purpose than that of mutilation, is committing a crime against nature.

For a permanent camp a building erected after the model of the lean-to will enable a group of boys to meet summer and winter, especially if a stone fireplace is built in front where the log fire will give cheer to the occasion. Fig. 15 shows a sketch of such a lean-to built by the people of Whitinsville, Mass., for just such gatherings of boys and girls.

SECTION 4

What and How to Cook

A meal cooked over an open fire in the great out of doors has a flavor no chef has yet been able to produce. When on a hike

or a week-end camping trip, avoid the "shoe-box-picnic-lunch." Take only the uncooked food with you, including, however, good home-baked bread. While "Bread Twist" and "Darn Good" and other cooked-before-the-fire breads are interesting experiments, they are somewhat severe on the organs of digestion.

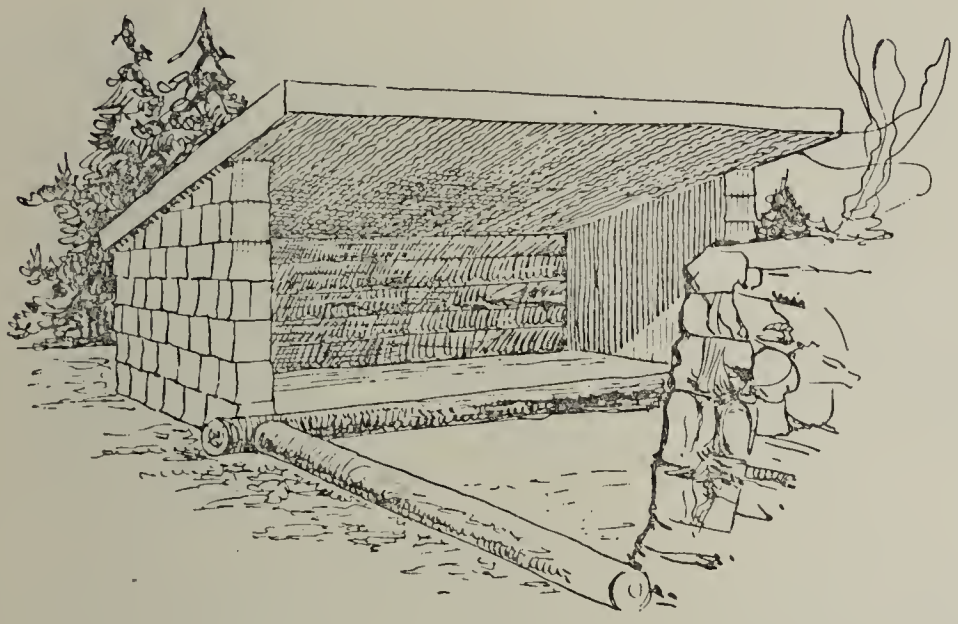


Fig. 15

When you arrive at the camping ground, divide your boys into groups and assign them work, such as wood gathering, water carrying, and fire building. This gives every boy a share in making camp.

Be careful in your selection of food. It must be varied, nutritious, and rich in energy values. Many campers suffer from malnutrition, not because of a lack of food but because of improperly balanced meals. Avoid everything that is constipating. The rations in the following list afford a variety of menus and are calculated to satisfy the palate of a growing boy as well as his physical needs: Bacon, baked beans, dried or chipped beef, potatoes, cocoa, coffee (for adults), prepared flour, rolled oats, onions, butter, salt, pepper, sugar, canned salmon, cornmeal, spaghetti, evaporated milk, rice, cheese, prunes. To this list may be added, canned goods such as soups, vegetables, and meats. Buy eggs and milk from nearby farmers.

Wrap all articles of food separately in waxed paper. Bread should be wrapped in a moist cloth to prevent drying up. Pack butter in a small jar. Buy bacon unsliced. You will need the bacon rind to grease the griddle.

"Flapjack Fantasies"

In making "flapjacks" use prepared flour (Aunt Jemima, Teco, Reliable, Heckers, or other well-known brand), as it is more reliable than batter mixed from ordinary flour and you are always sure of the result. Grease the griddle when hot with the bacon rind, held on a fork and moved about over the surface of the griddle, each time just before the batter is poured. The idea of the grease is simply to keep the "jacks" from sticking to the griddle; when more than sufficient grease for that purpose is used the "jacks" absorb it and are heavy, greasy, and indigestible. To "flap" a "jack" is an achievement which comes from long and patient practice.

Ordinary Pancakes. To each level cup of prepared flour, add one cup of cold water and stir with mixing spoon until the batter is the consistency of thick cream. The batter should run from the spoon in a continuous stream like thick syrup. Drop enough batter upon the surface of the hot greased griddle to make a cake of the size desired. When bubbles appear in the center you will notice that it is baking around the edge. When bubbles cover the entire surface "flap" with knife or by "flopping" in the air. For variety, add cocoa to the batter and mix. This gives a delicious chocolate flavor. If blueberries are available drop a few on the batter when poured on the griddle.

Corn Griddle Cakes. Two cupfuls canned corn, one cupful pancake flour, three quarters of a cup of cold water. Beat together the ingredients and fry as usual.

Rice Cakes. Mix cold boiled rice with an equal amount of flour (not prepared flour), add salt and small quantity of baking powder and fry the same as flapjacks.

Fried Mush. Prepare boiled mush by slowly adding cornmeal to boiling water and stir vigorously for twenty or thirty minutes to prevent lumping. Put salt in the water before adding the cornmeal. Serve hot as a breakfast cereal with milk and sugar. When cold it can be cut in slices, rolled in flour and fried in a little grease until brown.

Potatoes

Boiled Potatoes. Wash the potatoes in cold water. Pare off only a narrow strip around the middle of each potato to prevent it from bursting. Put in boiling salted water. When done they can be pierced with a fork. Pour the water off and let them steam for a few minutes.

Fried Potatoes. Cut cold boiled potatoes into medium thick slices. Put a reasonable amount of bacon fat in a hot frying pan, drop the sliced potatoes into the hot grease, sprinkle with salt and pepper, turn frequently with a knife or cake turner, and when golden brown serve.

Baked Potatoes. The potatoes should be buried in hot coals and baked until you can easily pierce them with a fork. Pass a hard wood sliver through them from end to end when they are taken from the fire to let the steam escape, or they will be soggy.

Eggs

Boiled. Raise water to boiling point. Place eggs in the water carefully. Boil for three minutes if you prefer them medium soft.

Fried. Put bacon fat in hot pan, when the fat hisses drop in eggs. Fry three minutes.

Scrambled. Break eggs and beat. Add teaspoonful of milk for each egg. Add salt and pepper. Bacon, finely chopped and added makes a very tasty dish. Put bacon fat in hot pan, pour in eggs and stir carefully until they thicken.

Omelet. Beat whites and yolks separately. Add to yolks salt, pepper, and a tablespoonful of hot water for each egg (hot water makes a more tender omelet then milk). Put bacon fat in hot pan and be sure that the side of the pan is greased or the omelet will stick when turned. Fold in the whites with yolks and pour in pan. When the mixture is cooked until evenly "puffed," roll it and turn.

Other Dishes

Bacon. Slice bacon thin and put in heated pan. Fry slowly. Keep the fat or "drippings" and use in frying potatoes, eggs, fish, and other things. Use sliced bread instead of a plate on which to put the fried bacon.

Fish. Clean fish well. Small fish should be fried whole, with the backbone severed to prevent curling up; large fish should be cut into pieces and ribs cut loose from backbone so as to lie flat in pan. Rub the pieces in cornmeal. Fry in plenty of fat to a golden brown, sprinkle lightly with salt and pepper just as the color turns.

Spaghetti. To two quarts of boiling water add one tablespoonful of salt, then add one cup of broken spaghetti. Boil forty minutes or until it is soft. Drain thoroughly, add a lump of butter. Serve with cheese or tomatoes. Add beef capsules to make a rich dressing.

Oatmeal. To four cups of cold water put one and one-half cups of rolled oats, one heaping teaspoonful of salt. Put on slow fire and let gradually come to a boil, stirring frequently to prevent burning, until desired thickness.

Rice. Put one tablespoonful of salt into two quarts of boiling water, add slowly one cup of rice, so as to not check the boiling of the water. Boil until soft. When stirring rice, always use a fork to avoid breaking kernels. Raisins may be added when rice is nearly cooked.

Prunes. Wash and soak prunes in cold water over night. Cook in same water slowly until soft. When nearly done add sugar to taste.

Salmon on Toast. Heat a pint can of salmon, picked into flakes, season with salt and pepper, and put into it a teaspoonful of butter. Stir in one egg, beaten light, with three tablespoonfuls evaporated milk not thinned. Pour mixture on toasted bread.

Cocoa. Allow a teaspoonful of cocoa for every cup of boiling water. Mix the cocoa with hot water or hot milk to a creamy paste. Add equal parts of boiling water or boiled milk and sugar to taste. Boil two or three minutes.

Coffee. For every cup of water allow a tablespoonful of coffee and one extra for the pot. Heat water to boiling point, add coffee,

boil five minutes, settle with one-fourth cup of cold water and serve. By putting the coffee in a small muslin bag and dropping it into the boiling water you avoid "grounds" and get clear coffee.

Baked Beans. Baking beans out-of-doors is a very slow process and only practical when you have plenty of time. It is much better to take oven-baked beans with you and heat up before serving. For the purpose of experimentation and experience, however, the following directions for baking beans are given:

Wash one quart of beans, parboil until when blown upon their skins will burst. Drain. Cover bottom of bean pot with beans. Place slices of salt pork in center and pour balance of beans on it. Add one-half teaspoonful of salt, little pepper, two tablespoonfuls of sugar or one-half cup of molasses, a little onion. Cover with warm water. Place cover on pot and put in oven.

To make a bean oven, dig hole in the ground, one foot deep and one foot wide. Have a fire burning for several hours, and stones hot. Scrape out ashes, coals, and stones. Put in pot of prepared beans, which has had a wet cloth put over the pot before putting on cover. Pack and cover with hot coals and stones and cover with earth. Leave for eight or ten hours. If it should rain, cover with bark.

Camp Fire Broiling

Toasted Cheese Sandwiches. Cut a forked stick of green wood. Make a sandwich of two slices of bread with a rich cheese filling. Toast over the hot coals.

Broiled Chops or Steak. Salt and pepper a chop or small steak. Fasten the edge of the chop or steak firmly on a two-pronged stick about three feet long. The butt end stick into the ground at such a distance and angle as will bring one side of the meat to a broiling distance to the fire. Keep turning the chop or steak until done. Serve with melted butter.

Bacon. Instead of sharpening the prongs, leave them blunt and split them down a little way with a knife, then place the slice of bacon in the splits across the fork of the stick. Placed in this way, it cannot curl and can be turned at will.

SECTION 5

Hikes and Mountain Climbing

Three things hikers should remember: (1) don't carry any more dead weight than you can help; (2) avoid long distances; (3) never walk over anything you can walk around; and never step on anything you can step over. It is amusing to see a boy start off on a hike with an outfit that looks like the display of a sporting goods house. A hiking outfit must be small and yet contain enough to be comfortable.

Dress in khaki or everyday pants. Wear heavy weight tennis shirt. For undershirt wear the sleeveless, buttonless, snug-fitting athletic jersey. It absorbs freely, is easily cleaned, and will serve as part of a bathing suit if necessary. Avoid clammy cotton wearing apparel. Wool is best for hiking. A coat sweater takes the place of a coat.

Never use rubber-soled tennis sneaks. Sticks and stones will punch your feet. Walking and climbing is hard on the bottom of your feet and a reasonably thick sole is a great help. Use medium soled, pliable, U. S. Army shoes (Munsen last) and either canvas leggings or puttees. If your feet "give out," the hike is ended. Bathing the feet at the streams along the road will be refreshing if not indulged in too frequently.

Use medium thick woolen socks or stockings. Wool absorbs the perspiration and prevents chafing. They should be a good fit. A sock that is too large or too small will cause trouble. Natural gray wool is preferable to dyed socks.

Wear a soft hat (Boy Scout style) and replace the leather sweat band with one of cloth. Sweaty leather poisons the skin, causes itching, and does not take hold on the head as will cloth.

Take with you the following list of articles: A tiny pocket comb, a small cake of hard water soap, toothbrush, extra socks, extra jersey, bath towel, khaki handkerchiefs, tube of vaseline,

First Aid Kit (American Red Cross pocket size), Boy Scout pocket knife, matches in small Colgate shaving stick metal box with lid that screws on, pocket flash light, needles, thread, and pins in small case, safety pins, small and blanket size, collapsible drinking cup, combination knife, fork, and spoon, camera and extra film, plumbers' candle. A Stopple Kook Kit will furnish all the cooking utensils needed and weighs only two and one-half pounds.

A three pound U. S. Army blanket may be rolled inside of a poncho and carried over the shoulder. The new pack-sack for Boy Scouts is just the thing for the hiker. For those who desire a tent, get a water-proofed "dri-ki," 8 x 12½ feet, which weighs about five pounds. When set up it has the form of a half pyramid and when taken down is an ordinary flat tarpaulin. You can roll it around your blanket and strap it around your pack.

Select your sleeping place before dark. Watch for prevailing winds and seek a sheltered spot and one that is dry. Don't sleep in damp blankets, dry them before the camp fire. A hot stone wrapped in a shirt or sweater is a good bed warmer. A pillow may be made by shaping a mound of earth with your hands and covering it with a coat or anything convenient. A "hip hole" is made by digging a place in the ground for your hips to fit in. You will get a lot of comfort from such a hole.

Be careful of your drinking water. It is unwise to do any drinking during a hike. This is an Army rule. Be careful of fires. Never throw away a lighted match. Put it out. Never leave a fire that is not absolutely extinguished. Be careful of blisters, cuts, and bruises. Be careful of overeating.

Good walkers always start slowly and gradually increase their pace. Shun spurts. Rest only for a short period; otherwise you will get stiff. Entirely relax when resting by lying flat on the ground. Walk off stiffness.

If a party is taking a hike, walk in step and sing or whistle marching tunes. Don't pass the pacemaker; obey the leader. This is team work.

When climbing it is always best to keep to the ridge. Never run down hill, it is tiring.

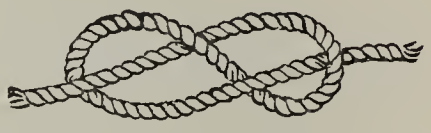
SECTION 6

Knots for Every Purpose

Every boy should know how to make and tie a knot properly. Notwithstanding the fact that knotting is an ancient device, used by mankind during the early ages for joining sinews of animals and fibers of plants, the art of tying a knot successfully was only introduced in a serious manner to boys within a comparatively recent period of years. To teach boys how to tie knots that will stand the strain of use is the work of a public benefactor. He will receive showers of blessing from those who have experienced the unloosing of improperly and carelessly tied knots on bundles, tent guys, or halyards.

OVERHAND KNOT

The simplest knot is the overhand. It is the foundation of many other knots.



THE FIGURE-OF-EIGHT KNOT

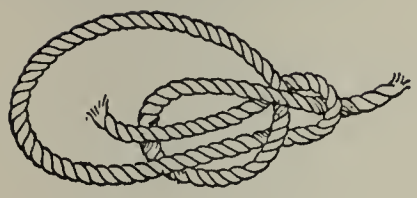
Very easily made and useful in many ways.

THE SQUARE OR REEF KNOT

The commonest kind for joining the ends of two ropes. Used in first-aid bandaging.

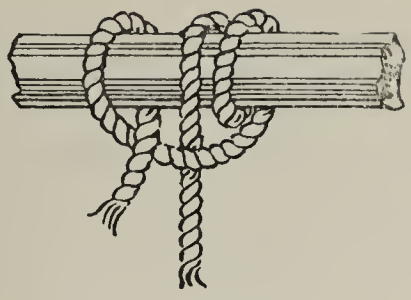
SLIP OR RUNNING KNOT

A useful knot to tie the guy ropes of a tent to the pegs.



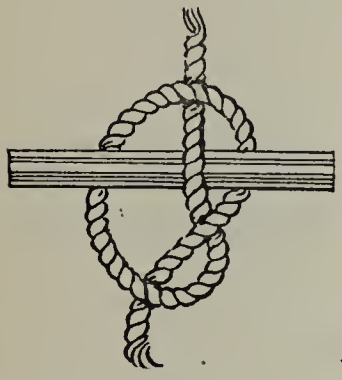
BOWLINE KNOT

A knot that cannot slip and is always used for slinging a man for the purpose of doing some particular kind of work; the worker sits in the sling. Used also by firemen in bringing a person from a building.



MANGUS HITCH

Used in tying guy ropes of a tent to a cross-pole. Not likely to slip. A method of securing a rope to a spar.

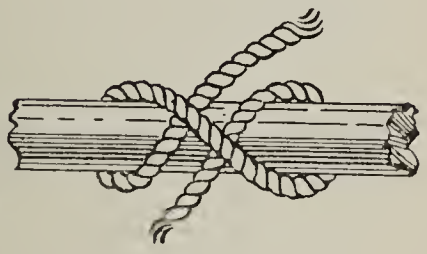


BOAT KNOT

A means of mooring a small boat.

CLEAT HITCH

Used in fastening the halyards of the flag to cleat of the flagpole.



CLOVE HITCH

Sometimes called "Builders Knot," merely two half-hitches. Used to fasten one pole to another in fitting up scaffolding.

"Figure Eight Knot"

For attaching eyed hooks. Used by fishermen.

Sheepshanks

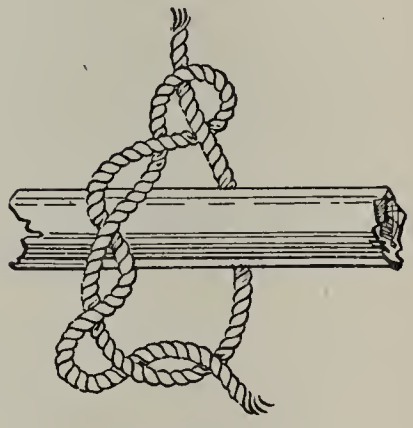
Used for shortening ropes.

Becket Hitch

For joining a cord and a rope.

Blackwall Hitch

A ready way of securing a rope temporarily to a hook.



Timber Hitch

Used in securing a piece of lumber. The pressure of the coils, one over the other, holds the timber securely.

CHAPTER XII

NATURE HOBBIES[1]

SECTION 1. GETTING ACQUAINTED WITH THE STARS
SECTION 2. HOW TO KNOW THE BIRDS
SECTION 3. COLLECTION AND PRESERVATION OF INSECTS
SECTION 4. THE DEVELOPMENT OF PLANT LIFE
SECTION 5. THE MAKING OF THE EARTH

SECTION 1

Getting Acquainted with the Stars

TAYLOR STATTEN

Although born and brought up in the open country where the gaze of the starry heavens is undimmed by the blinding lights of the city streets, I never learned to distinguish one star from another. I was an uninterested member of the great audience, before which is staged each evening the most wonderful of all spectacles. Some there are who have eyes, but see not!

In this, I was like many another country boy. It was not until after I had been living in the city for some time and was privileged to return again to God's great out-of-doors that the charm of the sparkling fires of space was revealed to me.

Let me tell you how it happened. We were on a canoe trip through Temagami. One of our party was an accomplished watcher of the skies. Although an amateur, he had recently made a trip to Labrador with some professional astronomers.

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One evening, as we sat on the shore of an island in Lake Temagami, he pointed out some of the stars and constellations and held us fascinated as he unfolded the mysteries of the worlds beyond. Although I soon forgot many of the interesting things he told us, my interest in stars was rooted and each year I have been adding a little to my stock of star knowledge.

Last summer while in Algonquin Park with a party which was organized as a band of Woodcraft Indians, we tried the tests for the knowledge of stars and I discovered, much to my surprise, that I could qualify for a Grand Coup and Star Wise Man's Honors (Woodcraft League).

While visiting the various boys' camps, I have found considerable pleasure in inspiring a few boys to commence star gazing. I trust that the interest planted that night on Lake Temagami may bear much fruit.

The first thing I learned was to locate the North Star. I was told that it was the one star in the sky that apparently did not move. Among other things I learned on that first trip which I have never forgotten was the fact that the two stars at the lip of the Big Dipper always point towards the North Star and appear to revolve completely around it every twenty-four hours. We were shown how to tell the time by trying to picture a big clock in the sky with twenty-four hours marked on the dial instead of twelve and numbering to the left, rather than to the right. The pointers of the Dipper are the hour hand. We tried it and soon discovered that we could tell the time with fair accuracy.

I have never forgotten the "Little Papoose" on the "Old Squaw's" back. The Old Squaw, "Mizar," is the second last star in the handle of the Dipper and the Little Papoose, "Alcor," is just above and apparently almost touching it. An Indian test for good eyesight is to be able to see the Little Papoose.

It would have been difficult to forget the constellation that looks like a broken-down "W," which was supposed by the ancients to be a beautiful lady sitting in a chair. I must confess that although I can always see the Gibson Girl in the moon, I have never been able to form any conception of the appearance of "Miss Cassiopeia." Those old-timers must have been gifted with powerful imaginations. This constellation is to be found

about the same distance from the North Star as the Dipper, but always directly opposite.

The other constellations which are not difficult to locate and which are easily remembered are the Northern Crown, the Northern Cross, the Lyre, the Eagle, the Herdsman, Job's Coffin, the Little Bear, Orion, Pegasus, and Hercules. These, with the Big Dipper, make a total of thirteen constellations. Although you cannot see all at one time, the majority of them will be visible any clear night, and by keeping up your interest during the entire year you will add a great many more to your list.

I have found real delight on a fine summer night in drifting out on a northern lake in a canoe with a copy of Olcott's "A Field Book of the Stars" and a small electric flashlight. After reading and studying the charts, I would turn off the light and try to locate the stars. I am not given to dreaming, but as I drifted away from shore and all sounds of life died out upon the earth save the occasional hoot of an owl and the weird call of a loon, I rejoiced to find how friendly and companionable the stars became. At times the silence of the vast and starry heavens almost filled me with terror. Its immensity seemed overwhelming. As my eyes rested first on one star and then another, and I realized that each was a sun, I tried to picture the worlds that were revolving around them and imagine something of the infinite myriads of systems, each similar to that which our sun controls.

Before you were born the ray of light you see from the North Star had left that orb. During the first second, it traveled 186,000 miles. In a minute it added 11,000,000 miles, and so on for thirty-six and one-half years it traveled at that great speed before it could reach your eye.

As you gaze on the Milky Way, remind yourself that it is a swarm of stars and every star a sun; that our sun is as one of the stars in the Milky Way; that it takes the light from our sun only 8 min. 17 sec. to reach the earth, but that it would take a cannon ball shot from the sun to the earth ten years to

strike us, and an express train, traveling without a stop, about 200 years.

Although there are about 7,000 stars visible to the naked eye, we see only about 3,000 at one time. The most powerful telescope reveals more than 120,000,000 stars. The universe is infinite, space is limitless, with innumerable worlds whose inhabitants in all probability think of us as we try to think of them. I confess that I derive great satisfaction in meditating in this way on infinity and with Flammarion I can say that "nothing stimulates my faith in God more than a few hours of the silence and peace of a bewitching night, contemplating, admiring, spelling out the words of the great Book of the Heavens."

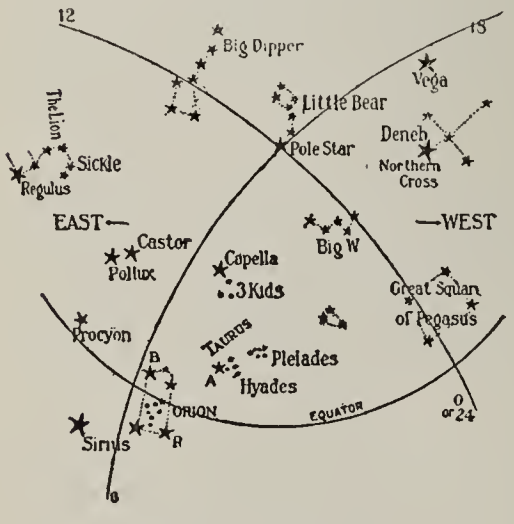
Every boy should make the following stars his friends:

1. *Arc-tu-rus.* Situated in the left knee of the Herdsman (Bootes). It is at its highest point in the heavens on June 8th.

2. *Vega* (the Falling Bird or Harp Star). In the Lyre Constellation. It is directly overhead on August 10th.

3. *Al-tair.* In the Eagle (Aquila) constellation, located in the neck of the Eagle. It reaches its highest point in the heavens on September 1st.

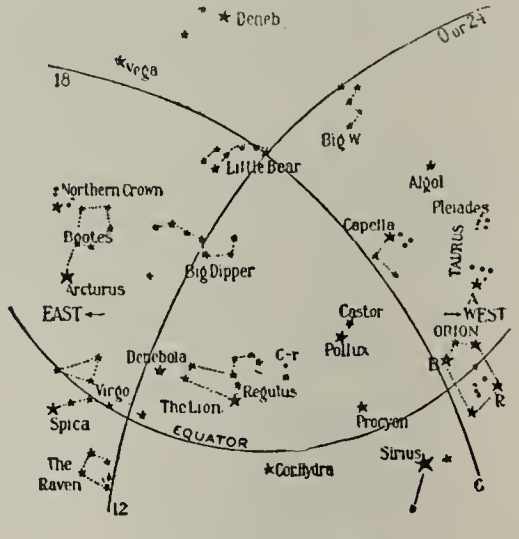
THE SKY IN WINTER



The 0 to 6 Quarter.

Line 0 is overhead about November 22nd. Line 6 is overhead about January 21st.

THE SKY IN SPRING



The 6 to 12 Quarter.

Line 6 is overhead about the 1st of February. Line 12 is overhead about May 6th.

4. *Deneb* (The Hen's Tail). To be found at the top of the Northern Cross or the Tail of the Swan.

5. *Po-la-ris.* The North Pole Star.

6. *Mizar.* The second last star in the handle of the Big Dipper.

7. *Alcor.* Located close to Mizar.

8. *Caph.* The hand of Cassiopeia, the Lady in the Chair. Caph is equidistant from the Pole Star and exactly opposite Megres in the Big Dipper.

9. *Gemma.* The brightest star in the Northern Crown.

10. *Al-bi-rea.* The base of the Northern Cross.

11. *Sadr.* The center of the Northern Cross.

12. *Sir-i-us.* Situated in the mouth of the Great Dog. It reaches its highest point in the heavens on February 11th.

13. *Rigel.* In Orion. The left leg of the Giant. It reaches its highest point in the sky June 20th.

14. *Pollux.* Located in the head of Pollux in the Twins (Gemini) Constellation.

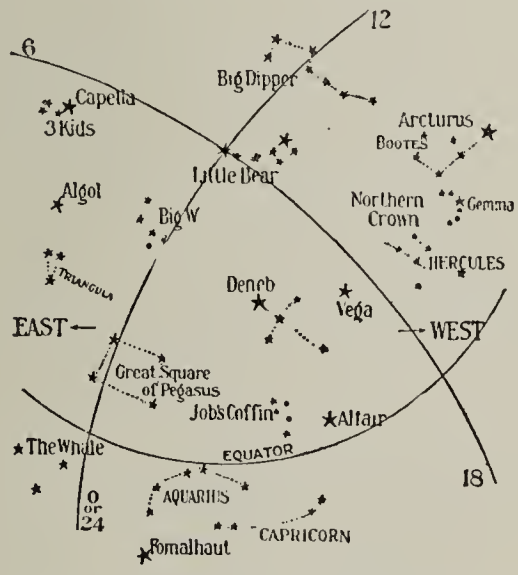
15. *Castor.* Located in the head of Castor in the Twins (Gemini) Constellation. It reaches its highest point in the heavens February 23rd.

THE SKY IN SUMMER

The 12 to 18 Quarter.

Line 12 is overhead on April 28th. Line 18 is overhead on July 28th.

THE SKY IN AUTUMN



The 18 to 24 Quarter.

Line 18 is overhead on August 22nd. Line 0 or 24 is overhead on November 22nd.

By the aid of the charts in Olcott's book, it will not be difficult to locate the following constellations:

1. *Ursa Major* (er-sa ma-jor). The Great Bear. This is the best known of the constellations. It is familiarly called the Big Dipper, sometimes known as the Plough.

2. *Ursa Minor* (er-sa mi-nor). The Little Bear. The North Star is in the tip of the tail of the Little Bear or the end of the handle of the Little Dipper, if you prefer to think of this constellation as such. Each of the four stars in the bowl of the Little Dipper is of a different magnitude—the brightest one is a second magnitude star and the dimmest of the fifth magnitude.

3. *Cassiopeia* (kas-i-o-pe-ya). The Lady in the Chair. A line drawn from the Big Dipper, through the North Star strikes Cassiopeia. Cassiopeia looks like a broken-down W.

4. *Taurus* (ta-rus). The Bull. This constellation can be easily located because it contains the Pleiades. There is also another V-shaped group of stars known as the Hyades. This is a winter constellation.

5. *Orion* (o-ri-on). The Great Hunter. Orion is also a winter constellation and is generally admitted to be the finest constellation in the heavens. Orion was supposed to be a great hunter and when he died, went to heaven. The three stars in his belt are called the Three Kings. Orion was worshiped in China and was known as the White Tiger. The Esquimaux believe that the three stars in the belt are steps cut by one of their saints in a snowbank to enable him to reach his glory.

6. *Lyra* (li-ra). The Lyre. This constellation may be easily located because of Vega—the very bright star in the zenith during July and August. One of the stars in the Little Triangle is a double. If you have good eyesight, you can detect this with the naked eye. Ordinary opera glasses show the two stars quite clearly. The small telescope in the observatory at Ottawa shows them about a foot apart and, through the larger telescope, you may see another star almost between them.

7. *Cygnus* (Sign-nus). The Swan or the Northern Cross. The Northern Cross is not far from the Lyre constellation and is located in the Milky Way. The Cross is almost a perfect crucifix.

8. *Aquila* (ak-wi-la). The Eagle. In the summertime, about half way up the sky in the Milky Way, you will find three stars in a line—the middle one being much brighter than the other two. The brightest star is Altair. This constellation resembles the form of an arrow head.

9. *Delphinus* (del-fi-nus). The Dolphin. This is another summer constellation. It is of a diamond-shape form and easily recognized. The early Greeks called it the Sacred Fish and by the Arabs it was known as the Riding Camel.

10. *Sagittarius* (sag-i-ta-ri-us). The Archer. During the months of July, August, and September face the southern sky and locate this constellation by tracing out a Milk Dipper and a Bow and Arrow.

11. *Corona Borealis* (ko-ro-na bo-re-a-lis). The Northern Crown. Not far from the end of the handle of the Dipper may be found a circle of stars or almost a circle, for it is not complete.

12. *Hercules* (her-ku-lez). The Kneeler. This constellation is immediately to the right of the Northern Crown and occupies the part of the heavens towards which the sun is bearing the earth and the planets of our system at the rate of 43,500 miles an hour.

13. *Bootes* (bo-o-tez). The Herdsman. First locate Arcturus, below and to the right of the Northern Crown. This brilliant star forms the lower end of this kite-shaped constellation which can be easily traced out by following the chart. Arcturus is 1,000 times the size of our sun and is mentioned in the book of Job. It is often called the star of Job.

14. *Pegasus* (peg-a-sus). The Winged Horse. PIONEERS should be able to locate this constellation. It is known as the Great Square. It is found by drawing a line from the North Star to Cassiopeia and doubling the distance.

There are many fine books about the stars that are written for beginners. Among the best are:

"A Field Book of the Stars," by Wm. Tyler Olcott (G. P. Putnam & Sons).

"Astronomy for Amateurs," by Camille Flammarion (D. Appleton & Co.).

"A Book of the Stars," by R. F. Collins (D. Appleton & Co.).

"Around the Year with the Stars," by Garrett P. Serviss (Harpers).

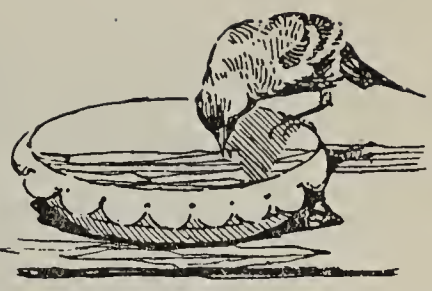
SECTION 2

How to Know the Birds

W. E. SAUNDERS
Ornithologist, London, Ont.

Bird life is attractive to every boy and no other hobby is more beneficial in its results. Even if it is followed casually, so that the total number of one's bird acquaintances amounts to perhaps twenty, zest and interest are added to every walk in country or city and one is constantly renewing acquaintances with his feathered friends; and if, on the other hand, the hobby is pursued with enthusiasm, interest grows with the pursuit.

We all know that the bird is an animal that wears feathers, flies in the air, builds nests, and lays eggs, but have you tried to learn anything of the details of the life of these interesting creatures? Do you know what birds prefer to fly, what birds prefer to walk, what birds prefer to swim? Do you know which birds fasten their nests to frail twigs, which ones use larger limbs and crotches, and which use nesting sites around buildings or holes in trees? What birds nest on the ground, and which in holes in the ground? The number of questions that might be asked about these and similar phases of bird life is great, but your interest will be greater if you try to answer questions put by yourself, and you will not be able to ask these questions until you have started to make the acquaintance of some birds.



There are several easy and practical methods of getting acquainted with the birds at short range, any one of which may be used as a start. The easiest, perhaps, is the providing of nesting-places. Providing food and drink is another method which leads to good results. In the summer time it is difficult to provide appropriate food for most birds, but greater numbers of them are attracted by water, which may be offered to them in various containers, from a simple pan laid on the ground, to an elaborate stone or concrete basin. It is also possible to get an intimate acquaintance with some birds by taking advantage of their nesting time to approach and make friends, but this is more difficult and takes much more time than inviting the birds to make friends with you. The great advantage of the latter method is that it may be pursued at your home and thus the birds are under constant observation.

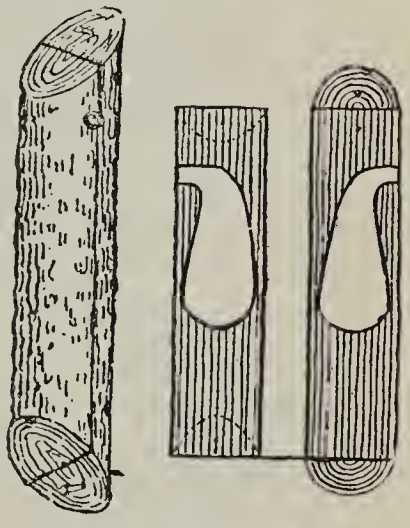


Fig. 1. The Woodpecker Hole

The number of species that can be induced to nest in places made by human hands is small. The species most easily attracted is doubtless the house wren (Fig. 7) whose bubbling song and familiarly inquisitive manner make him perhaps the most welcome of all the summer sojourners. Wrens will nest in almost any sort of a cavity if they happen to fancy it, but in providing nesting sites for these wild things it is better to approach nature as nearly as possible. Offer them a cavity nearly like the ones which have been used by their kind for hundreds of years, namely, the woodpecker hole. This is not a simple cylindrical hole in a piece of wood, but is shaped as shown (Fig. 1).

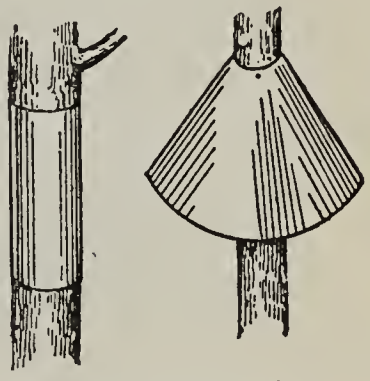


Fig. 2. Protecting the Bird House from Cats

The natural excavation is here compared with that made by the best manufacturers, but it can be pretty well duplicated by splitting a short log and fastening the halves together after the hole is completed. Such houses, when placed in favorable situations, may attract not only the

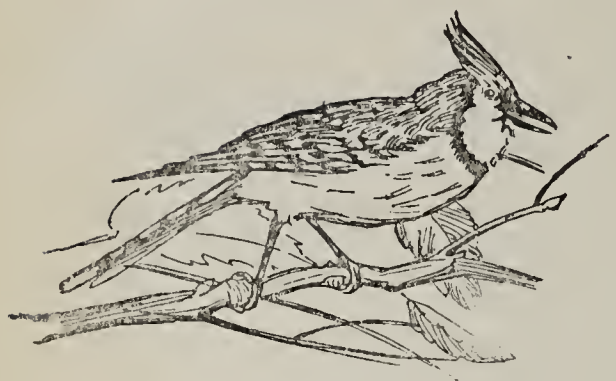


Fig. 3. Blue Jay

house wren but the flicker (Fig. 8), woodpecker (Fig. 4), bluebird (Fig. 9), tree swallow, crested flycatcher, chickadee (Fig. 6), and nuthatch, and while the first two species do not seem to be much attracted by any cavity except the standard natural one, those mentioned later may be induced to nest in almost any sort of a box.

Fig. 4. Downy Woodpecker Inspecting the House

It seems to be more within the reach of the human being to make friends with these hole-nesting birds than with a great many others, and that is a good reason for endeavoring to begin with birds of that type. Once a pair of birds is induced to nest in your garden, or around your home, the intimacy of your acquaintance with them is limited only by the amount of time you can spend with them.

Some other species of birds may be induced to nest on shelves put up for the purpose. These comprise the robin (Fig. 5), phœbe, barn swallow, bronzed grackle, but the latter, with the cowbird and the blue jay (Fig. 3), are not good subjects for encouragement. They eat nestlings and eggs and it is a usual occurrence to find that where these predacious birds are encouraged smaller and more useful birds diminish.

Fig. 5. Robin Nesting on the Bird Shelf

A little book by Samuel B. Ladd, "How to Make Friends with the Birds," may be studied for additional information along this line.

Classification

As soon as you have made the acquaintance of even a few kinds of birds, it is time

to learn what families they belong to, for the reason that the habits of different species of a family are more or less alike. The robin, for instance, belonging to the thrush family, has habits which resemble to a considerable extent those of the hermit, wood, and other thrushes. The habits of the song sparrow bear a close resemblance to those of other sparrows. The habits of the warblers and fly catchers bear a close relation to each other, and as habits are often a strong clue to the identity of a bird, a knowledge of their relationship will be a valuable aid to identification.

Fig. 6. Chickadee

Color is, of course, the usual key with which a bird's identity is made out, but habits are more instructive and interesting and should be studied as much as possible.

Bill

The most prominent point of resemblance in the different families of birds is the bill. The bill is the means of obtaining food and, therefore, it follows that the bill must carry a certain resemblance. Such families as woodpeckers, flycatchers, and sparrows are good examples of families in which the bill is a real trademark, showing both occupation and relationship.

Color Variation

One phase of bird life which is very attractive and interesting to the beginner is the variation of coloring between the male and female birds. These variations are not confined to any special families, nor do they occur consistently throughout most, but very few families of birds fail to show such variations. Sometimes the differences are trivial

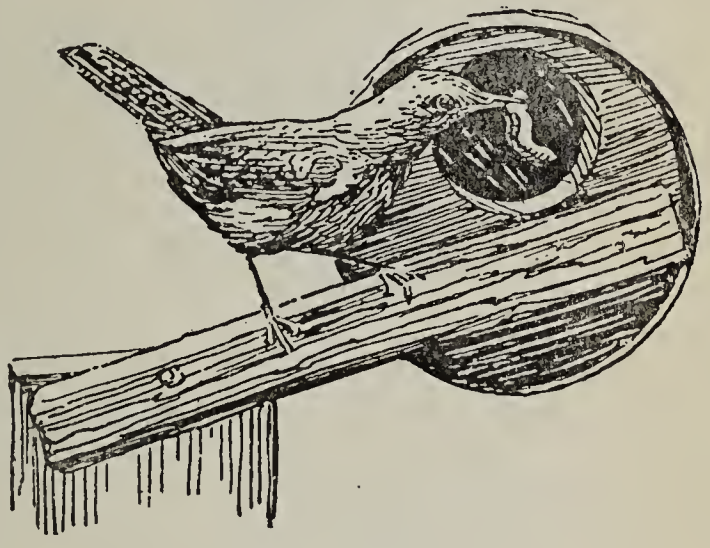


Fig. 7. Wren

Fig. 8. The Flicker at the Woodpecker Hole Bird House

and often the male and female are so different that one would scarcely take them to belong to the same race. As a general rule it may be stated that those species which show the most brilliant colors show the greatest difference between the sexes. Examples are the oriole, tanager, indigo bird, cardinal, bluebird, grosbeak, goldfinch, and others.

Migrations

Birds, like human beings, have a home. It is the place where they return year after year to rear their young. The instinct for migration is developed to a wonderful extent. Set a boy down at Hamilton and tell him to walk to Guelph and he must ask his way many times, but the tiny humming-bird finds his way from Lake Superior across the Gulf of Mexico, and returns with no guide but that of instinct. This sense, if it may be so called, is nearly dormant in human beings.

Nest Construction

Fig. 9. Bluebird

One of the most interesting departments of bird study is the investigation of nest construction. After the young birds have flown, the nest may be taken and carefully picked to pieces, the pieces laid together in sorted piles and eventually counted. The individuality of birds may thus be studied and if it should be possible to investigate the character of two or more nests made by one bird, the comparison may demonstrate the settled nature of the individual.

Big Birds

Every one ought to feel that in our birds, especially the larger ones, all the people have a common interest and proprietorship, and it is the privilege of no one to kill wastefully, or for display of prowess, any bird which belongs to the whole nation. The larger the bird, the more widespread

is the interest taken in it by the general public, and it must be regretfully stated that the larger the bird, the greater seems to be the impulse, on the part of a certain class of sportsmen, to kill it.

What feature could add more to the interests of our waterways, for example, than the presence of numbers of fish hawks, herons, and eagles? The protection that they need depends largely upon the backing they receive from public sentiment, and every right-feeling boy will give his influence to the protection of these birds that need it so sorely.

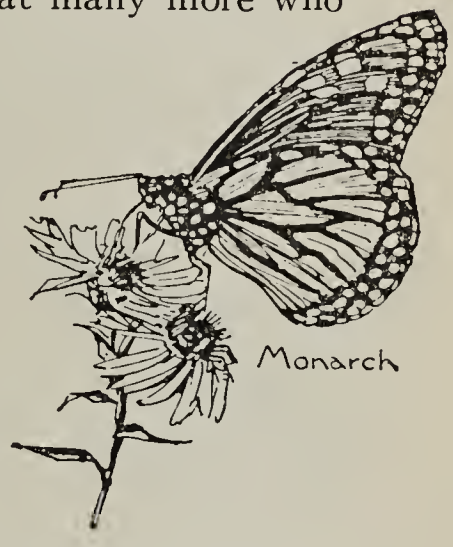
SECTION 3

The Collection and Preservation of Insects

ARTHUR GIBSON

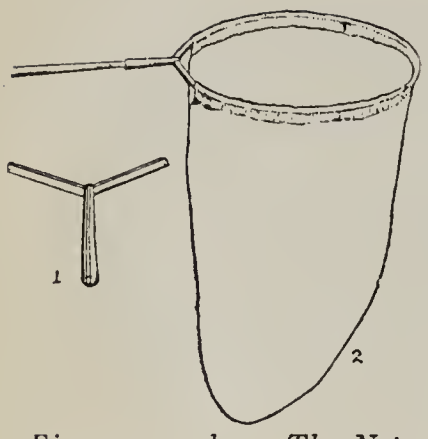
Chief Assistant Entomologist, in charge of Field Crop Investigations, Department of Agriculture, Ottawa

There are many boys who are keenly interested in insects and their habits, and there are, of course, a great many more who have not as yet experienced the pleasure of watching these creatures which play so important a part in the realm of nature. The insect world is truly wonderful and a greater number of young people are every year becoming more interested in its inhabitants.



The following brief directions for the collection and preservation of insects it is hoped will assist those who have an earnest desire to retain specimens for future study. The careless collection of insects is not, of course, advised. Many kinds of insects have a definite purpose in life and their ruthless destruction is not recommended unless they are kinds which are destructive to field crops, trees, and other vegetation.

Nets of various kinds may be purchased from dealers in entomological supplies. A good net for general collecting purposes may be made as follows: Take a piece of cane 38 inches long



Figures 1 and 2. The Net

and rather more than one-quarter inch thick. Bend this into the shape of a circle by dipping in hot water and shave off the ends to fit the upper square projections of a ferrule. Any tinsmith, for a small sum, will make one of these ferrules (Fig. 1). For the bag of the net, green or white leno, or even ordinary mosquito netting, is serviceable. This should be first soaked in water to remove the stiffness. When dry again it can be cut in shape similar to Fig. 2. A piece of strong cotton should be doubled and both edges sewed to the top, so as to make a passage for the cane to slide through to keep the net in shape. A handle about three feet long completes the outfit.

The Killing Bottle

Any wide-mouthed bottle of convenient size will answer Strong specimen tubes or shell vials can be had cheaply from druggists and may be used for the smaller butterflies and moths or other insects of similar size. Beetles should be killed separately. Potassium cyanide or sodium cyanide are the poisons used for killing insects. Whichever cyanide is used should be broken into small pieces and put into the bottle, just sufficient nearly to cover the bottom. On the top of this should be poured some liquid plaster of Paris, not more than half an inch. Some collectors put in a layer of sawdust between the cyanide and the plaster of Paris. The bottle should then be left standing for a couple of hours before replacing the cork. It is then ready for use. Insects placed in the bottle are quickly killed. The deadly poisonous nature of the cyanide should be kept in mind, and care exercised in handling it. The bottle should be labelled "*Poison.*" Large moths, such as the Emperors and Sphingids, are killed quickest by oxalic acid diluted with water. If the under side of the thorax between the bases of the legs is pierced with a sharp pen dipped into this liquid, some of the acid will find its way into the body and cause almost

Banded Purple

instant death. Preparatory to this a few drops of chloroform may be poured over the body of the insect to stupefy it.

Collecting

With a little experience the collector will soon be expert in the use of the net. It is impossible to lay down any rules as to where to collect. Even butterflies do not all fly in the same places. Some kinds prefer sunny openings in woods; others, swamps or the margins of streams; others, again, are found along railroad tracks. The moths are to be sought for chiefly at night. Many begin to fly during the early evening, and can be caught around flowers at that time. The electric lights on the outskirts of towns and cities attract numbers of moths, beetles, and other insects and here they can easily be collected. Beetles may be collected in the early part of the season from beneath boards, flat stones, and bark of old stumps, and later from flowers, tree trunks, and pools. A simple way of collecting beetles and many other kinds of insects is to hold in one hand an inverted umbrella beneath a branch, tapping the latter with a stick held in the other hand, in order to dislodge any of the insects which may be on the foliage. Dragon flies prefer swampy areas, frequently streams, pools, and such places. Two-winged and four-winged flies are found almost everywhere in fields and woods.

Red Admiral

Mounting

Special tin collecting boxes can be bought, but an ordinary cigar box with a strip of cork glued to the bottom to receive the pins will answer. Entomological pins are a necessity, and these can be purchased in

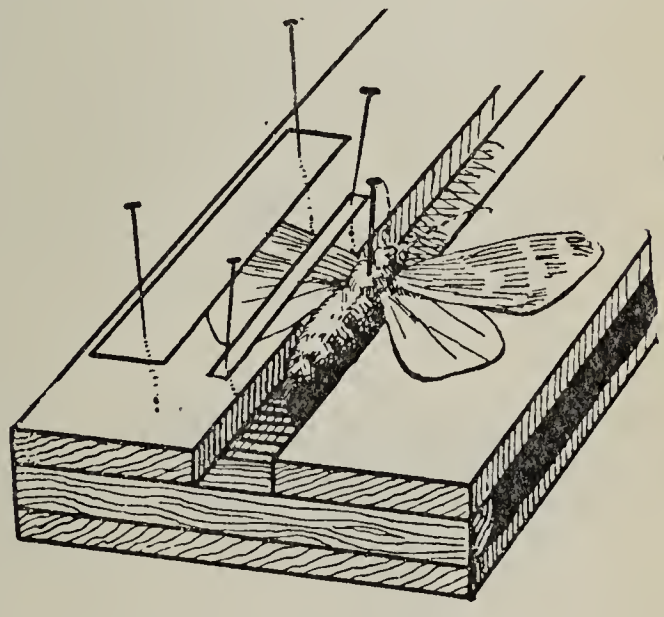


Fig. 3. The Mounting Board

various sizes. Butterflies, moths, dragon-flies, and other large insects, with the exception of the larger beetles, are pinned through the center of the thorax; the beetles are pinned through the right wing cover about one-fourth the distance from the base. Beetles and other kinds of insects too small to be pinned may be preserved by mounting them, with thin LePage's glue, on small points made from thin white cardboard like that used for calling cards. These points should be three-eighths of an inch in length by one-eighth of an inch at the wide end. For mounting butterflies and moths, spreading boards are used (Fig. 3). They can be made of any soft wood. As the bodies vary in size several spreading boards are necessary. Boards 12 inches long and in width 6½, 4½, 3¼, and 1½ in. with body space ⅝, ½, ¼, ⅛, and $\frac{1}{16}$ in. wide respectively are convenient sizes. Below the groove a strip of cork should be glued to hold the pin. When mounted, about one-fourth the length of the pin should show above the specimen. The wings should be arranged as shown in the figure, the lower margins of the front wings forming as nearly as possible a straight line. With fine needles the wings can be brought forward and held in place by strips of writing paper or thin cardboard. Specimens should be kept on the spreading board at least a week or ten days.

Yellow Swallowtail

If it is not convenient to mount the specimens immediately after their capture, they may be allowed to dry and later on relaxed by putting them in a receptacle containing an inch or so of damp sand. A vegetable dish with a close-fitting lid does very well for this. In about twenty-four hours the specimens should be relaxed sufficiently to spread.

The Emperor

Preserving Specimens

Every specimen saved should bear a neat label, giving the locality where collected, date of capture, and name of collector. Such information is often of much scientific value. If only

a small collection is being made, mounted specimens may be arranged in ordinary cigar boxes, or any other kind of shallow box, the bottom of which is lined with cork to receive the pins. It will be necessary to keep examining such boxes at short intervals, as they are not, as a rule, tight-fitting and museum pests soon find their way into them and destroy the specimens. Standard insect cases of various sizes may, of course, be bought from dealers. Some forms of deterrent to museum pests, such as naphthaline or camphor, should be put in each case or box. A simple way is to make small bags of cheesecloth and fill these with ordinary flake naphthaline, pinning one of the bags in a corner in each box. A pair of entomological forceps will be found very useful in handling pinned specimens.

Rearing Insects

The collection of immature forms and keeping them under observation is one of the most fascinating phases of insect study. The caterpillars of many of the moths and butterflies are easily reared. Ordinary jelly jars with tin lids make excellent breeding cages. Some earth should be put in the bottom of each jar, as many caterpillars pupate in the ground. Fresh food should be fed every day and care taken to keep the jars clean and out of the sun. Unless the caterpillars are very small, only one or two should be kept in a jar. If a number of the same kind are being reared, larger jars will be necessary. In the fall of the year the cocoons of the Emperor Moths are often seen attached to the limbs of trees. If these are gathered, kept out of doors during the winter, and brought into the house in May of the following year, a most interesting surprise will await the collector.

SECTION 4

The Development of Plant Life

J. W. EMERY, PH.D.
Principal, Normal School, Stratford, Ont.

"And the earth brought forth grass, and herb yielding seed after his kind, and the tree yielding fruit, whose seed was in itself, after his kind; and God saw that it was good."—Genesis 1 : 12.

The earth, as most of us see it, is clothed with verdure. Everywhere we see forms of plant life in endless variety, from the towering giants of the forest to the meek flowers of the field and wood. We admire their beauty, we use them for food or fuel, and we are kept alive by their ability to purify the air. So accustomed have we become to the vegetable life about us that we may have been led to think that it has existed unchanged from the beginning of the world; but such is not the case. It is true that Julius Cæsar probably saw in Britain a vegetation differing but slightly from that which George V. now looks upon; but the time separating these two men is but a moment compared with the ages that God has used in bringing this earth to the stage at which we see it today.

We know that ages upon ages ago the earth cooled from a fiery, gaseous state to a molten form and from this to solid rock. This rock is of the hardest description, chiefly granite. Land plants require soil, and soil is made from the breaking down of rock by such agents as frost, ice, heat, and cold—atmospheric action, a sure but exceedingly slow process. The only plants today that can live on bare rocks are the lichens, so we must suppose that these were among the earliest of the land plants and that they were probably the only plants for a very long period of time. Their remains must have contributed greatly to the formation of the layer of soil so necessary to the growth of the higher plants.

While the earth was being fitted for its crop of vegetation, the water "was bringing forth abundantly." It is here, no doubt, that life first appeared, and that in vegetable form. If you look into any stagnant pond or slow-running stream you will see masses of green, slimy-looking material floating about or fas-

tened to the stones at the bottom. Examination under a microscope shows that this is composed of beautiful thread-like plants, and among them may be seen some that are branching; others again are of spherical shape. Those—the so-called Algæ—are of many species and are the fresh-water representatives of the larger seaweeds found in the ocean. We have reason to believe that these seaweeds occurred long before any of the land plants.

It may be asked how we can speak so confidently about what grew in those ages long before history was written, before man had yet appeared on earth. We have learned that the first rock formed came from the solidified molten mass; it was granite. After this had cooled sufficiently, water was condensed upon it. Imagine the water in the forms of raindrops, streams, and waves, aided by the atmosphere and the heat and cold, acting through immense periods of time till great layers of fine sediment were spread on the sea floor and compressed into solid rock. Imagine the seaweeds and dead shell fish getting mixed up in this material. Imagine the new rock being elevated till it stood uncovered by the sea. We now have a new kind of rock forming the earth's surface, stratified or sedimentary rock. On breaking this we find the petrified remains of the life that was buried in it—fossil plants and animals. In these stratified rocks we have preserved for us a record of the life that has existed on the earth, somewhat disconnected, it is true, but becoming more and more complete as new links are discovered and the "footprints of the Creator" brought more clearly to our view by human research.

Now, to return from this digression, the oldest plant fossils we find are those of seaweeds and the first land plant remains occur in rocks separated from them by immense periods of time.

We must digress again here, in order to consider briefly the different great classes of plants as we find them today. Lowest of all are the Algæ and following in order of complexity of structure are the fungi, mosses, and ferns. These are the so-called flowerless plants. Above these are the seed-bearing plants, first the conifers or evergreens, then those of the palm type including lilies, grains, and grasses, and finally the highest forms represented by our hardwood trees and the majority of our flowering

shrubs and herbs. By a "low" plant is meant one that has few or no organs, being a homogeneous mass or layer or thread or even a single microscopic cell. The "higher" the plants, the greater the differentiation of parts into root, stem, flower, bark, veins, and hairs, each with its peculiar function. It is worthy of note that the oldest rocks contain only the lowly-organized plants, the higher plants appearing in order as the rocks become more recent.

The most interesting of plant remains are in the carboniferous period, the period during which most of our best coal seams were formed from the profuse vegetation of that time. The forests of this period presented a strange sight. There were no hardwood trees, no evergreens; but tall tree-ferns and gigantic horsetails, and the scaly trees, the Lepidodendron, represented now by the little creeping clubmoss used for Christmas decorations. With a little patience any one may find traces of these ancient plants in the pieces of black shale commonly seen mixed with the coal.

In the ages that followed the carboniferous, the evergreens appeared. The rock informs us that at one time the great redwoods, now confined to a short strip in the warmer parts of the Pacific Coast, were the predominant trees of the North American forests. But conditions changed and they passed away, new types taking their place; first the palms and other tropical or sub-tropical trees, and finally the hardwood forests very much like those we see today. And so we not only have our earth clothed with an endless variety of plants, but these have been getting better and better with the passing ages.

We ought not to suppose, however, that God had to perform a special act of creation as each new plant was needed. It sufficed that He gave that mysterious thing Life and an orderly law of development. Changing conditions were then able by a gradual process which we call evolution to convert one form of life into another better adapted to the new environment. Creation is not yet finished.

The biblical account of the creation is so brief that one might get the impression that all the plants were made in one day just at the speaking of a word, and there are many good people who resent the introduction of any other plan as discrediting God's word.

In the foregoing account there is no contradiction of the book of Genesis. Let us be careful not to expect from the Bible that which it was never intended to give us. It is purely a spiritual revelation. In it we find what the human mind, aided by the finest instruments, has been able to discover: God created the earth, the heavens above it, and the life upon it. The Bible is not a book of science nor of history: hence, to discover how He created these things we must look elsewhere. God has given us eyes, ears, reason, and a second great book, nature. With these senses and this reason He bids us read for ourselves.

"There is a book who runs may read;
Which heavenly truth imparts,
And all the lore its scholars need—
Clear eyes and Christian hearts.
The works of God above, below,
Within us and around,
Are pages in that book to show
How God Himself is found."

He would be great, indeed, who could bring all the plants of the world into being by a magic word like some great genius of the Arabian Nights. But is He not an infinitely greater God whose days are aeons; who works through all eternity by systematic, orderly, unchanging laws which are beneficent when obeyed, but bring inevitable disaster to the transgressor?

SECTION 5

The Making of the Earth*

CECIL L. BROWN

I believe one of the most fascinating trips that one can take is an imaginary trip away back down the ages of time, away beyond the earliest dawn of human history. This was many millions of years before men began to record historical events on the walls of their caves, on the sides of great pyramids, on bark,

* Scientists are not and perhaps never may be all agreed upon any one of the theories founded upon geological and other facts, but many, if not most, will agree in general with this account of the making of the earth.

on skins, or on paper; yes, millions of years before men were ever on this earth. Yet the rocks and stones of this earth were wonderful historians and some men whom we call geologists have been able, with the help of the rocks and stones, to read the history of the long ages past, and a wonderful history it is. If I were to attempt to tell you the story of it in detail, it would take many large books, so we will discuss it here only very briefly.

In the beginning God created the heaven and the earth. The earth was without form and unfinished. The writer of Genesis gives us a very true story of the making of the earth, but does not describe the process of making it at all in detail. First, he says that the earth was without form and void. Now, scientists tell us that this was so, and that God caused the earth to exist first in a gaseous state. This great amount of gas was very hot. The heat was far greater than any heat that we know at the present time. Water when it is very hot is in the form of a gas which we call water vapor. As the water vapor cools it turns to a liquid called water, and when it gets very cold it turns to a solid called ice. Now any mineral or rock, if heated to a sufficient temperature, turns to a molten state, and if it is made still hotter, it turns to a gaseous state. Thus it is supposed that all the water, minerals, and rock that we have in the world today were mixed up in an intensely hot gaseous form. The earth then, of course, would have been much larger than now, as we know water expands when it turns to steam, so all of these substances must have taken up more space when in a gaseous state (Fig. 1).

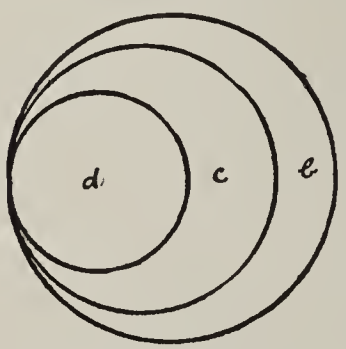


Fig. 1
Illustrating comparative sizes of gaseous stages with present earth.
a. Present Size.
b. c. d. Successive Decreases in Size.

Imagine a world of this kind, nothing but an immensity of flaming vapor. Then, as this gradually began to cool, it naturally turned to a liquid form and this world would be just one vast ocean of fiery matter, swung into mid-space by the Creator, sending its lurid glare of fearful light far through the cold intervals of infinite space.

Supposing it were possible for us to have witnessed this wonderful, yet terrible sight, we would very likely have said, "Surely

God is making a great mistake, how can any created being ever inhabit or enjoy a world like this?" But God's knowledge is deeper than ours, and in this mass of molten matter He saw order and beauty and the beginnings of a great and beautiful earth.

We must never be hasty and doubt God, because God works slowly and in a developmental manner and He never makes a mistake. When we take an acorn into our hands, we might say, "God can never make a strong and sturdy oak tree out of this," but yet we know He does. He takes a hundred years to do it, but when it is finished it is mighty and strong.

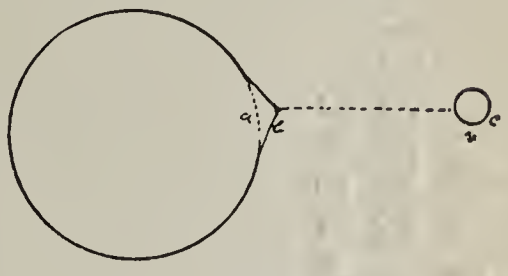


Fig. 2
Illustrating the attractive force of the moon.
a. Earth.
b. Tidal Wave.
c. Moon.

You have all heard of the tidal wave that crosses the ocean every twenty-four hours. This is supposed to be caused by an attractive force exerted by the moon. Now, we have reason to believe that when the earth was in this molten state the moon would quite naturally cause a wave of this fiery liquid to go clear around the earth every twenty-four hours. As the molten mass cooled, however, a crust, like thin ice forming on water, was formed on the outside of the molten mass, and when the tidal wave came around it shattered this thin crust to fragments. This would take place till the crust was sufficiently thick to withstand the pulling force exerted by the moon (Fig. 2).

As ages of time swept on and the earth's crust became stronger and thicker, the water which had heretofore existed in the form of water vapor, gradually began to cool. A scene of terrific sublimity now approaches. As yet no water existed upon the earth. No rain had fallen upon the parched and blackened crust. All the water which now fills the oceans and the rivers and the lakes, all which saturates the atmosphere and the soil and the rocks, rested then upon the earth as an arid, elastic, invisible vapor, extending an unknown distance into surrounding space. This vapor was not like steam, but intensely hot and invisible. It was like the water vapor just issuing from the exhaust pipe of a steam boiler. The time had now arrived, however, when the remoter regions away from the earth to which this aqueous gas

extended began to be so far reduced in temperature as to cause condensation to begin, as the heated water vapor, rushing from the locomotive, soon cools into a cloud of visible mist or steam. If a person could have been present on the earth at this time, he would have seen the dusky atmosphere begin to thicken. In the far-off regions wisps of vapor crept along the sky, as thin dark clouds or cirri. In our day this would denote a gathering storm and so it did in this case. These clouds grew and thickened and darkened, till a pall of impending clouds enwrapped the earth, and the light of the sun, moon, and stars was shut out for a geological age, which probably covered thousands of years.

Particles of cooled vapor drew particles to themselves and the rain drops began to fall towards the warmer strata of air near the earth. But in their descent as they approached the still hot crust of the earth they were scorched to steam again and, as the meteor's light vanishes in mid-heaven, they disappeared and were sent hurrying back to the bosom of the cloud, to be again sent forth as rain and again consumed back into the cloud. At length they got as far as the hot crust, but this seething, hot crust rejected the cool offering and they were driven back to the over-burdened cloud, which had an ocean in its bosom to transfer to the earth.

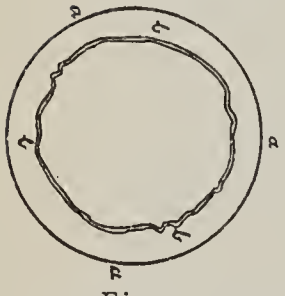


Fig. 3
Illustrating formation of earth's crust.
a. Former Mass.
b. Wrinkles, etc., in Shrinkage.

The space between the clouds and the earth was one stupendous scene of ebullition. But the descent of rains and the ascent of vapors disturbed the electricities of the elements. In the midst of this natural yet stupendous contest between fire and water, the voices of heaven's artillery were heard. Lightnings darted through the awful darkness and world-convulsing thunders echoed through the universe. Yet all was order and all part of a great plan. The infinite mind of God the Creator saw in the making an earth beautiful, which would be a fit abode for all the lower creatures He was to create, as well as for men.

But now the great storm has passed and the waters cover the face of the earth. As the crust cools it shrinks and as it shrinks it wrinkles up in places. Mountain ranges and islands protrude through the surface of the water.

As this cooling process goes on, even continents are heaved up through the surface of the mighty ocean and the water gradually drains off. As this vast ocean we have mentioned washed around the surface of the earth, it caused a great erosion on the rocky crust and a sediment of fine rock gradually was formed and settled on the bottom.

Now, as the islands and continents appeared, shoved up by the earth's shrinkage and covered with this sediment, vegetation sprang up on the land. Then, as the water cooled, myriads of water animals and fish appeared in the oceans and lakes and animals roamed the forests, which already covered much of the land. The plains were clothed in verdant grass; the trees, bearing fruits and nuts, grew in all the forests; multitudes of fishes filled the lakes and rivers; animals roamed the forests, whose flesh was useful for food, and whose skins were excellent for clothing. When all was ready, God introduced man to the earth which He had prepared for him and gave him dominion over all.

This is only a short story of the making of the earth. It does not stretch back into the unknown eternity. However, we find God to be the firm rock of support from which the chain of existence hangs. He is the "Rock of Ages." We feel strengthened and comforted in knowing that, even though our knowledge is very small, even though there are mysteries we cannot explain, there is one thing we know, and that is, "In the beginning God created."

CHAPTER XIII

OUR NATIVE TREES

ERNEST THOMPSON SETON

"Fifty Common Forest Trees of Eastern North America"[1]

White Pine
Red Pine, Canadian Pine, or Norway Pine
Long-leaved Pine, Georgia Pine, Southern Pine, Yellow Pine
Tamarack, or Larch
White Spruce
Hemlock
Balsam Tree
Bald Cypress
Arbor-vitæ, or White Cedar
Quaking Asp, or Quiver Leaf
Black Willow
Balsam Poplar, or Balm of Gilead
Cottonwood
Black Walnut
White Walnut
Pecan
Shagbark or Shellbark
Mockernut
Pignut Hickory
Red Oak
Scarlet Oak
Black Oak, or Golden Oak
Pin Oak, or Swamp Oak
Beech
Chestnut
White Elm, Water, or Swamp Elm
Slippery Elm
Osage Orange, or Bow-wood
Tulip Tree, White-wood, or Yellow Poplar
Sassafras
Sweet Gum, Star-leaved Gum, or Liquidambar
Sycamore, or Buttonwood
Red-bud, or Judas Tree
Sugar Maple, Rock Maple, or Hard Maple
Silver Maple or Soft Maple
Red, Scarlet, Water, or Swamp Maple

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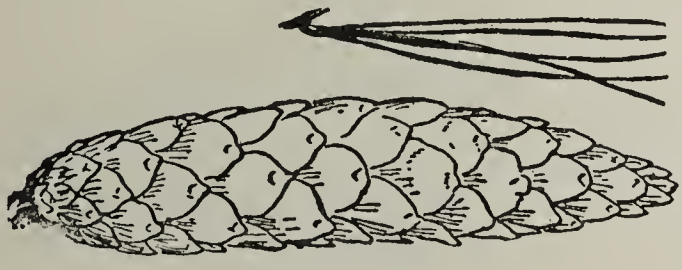
Gray Birch, or Aspen-leaved Birch
White, Canoe, or Paper Birch
Yellow Birch, or Gray Birch
Ironwood, or Hop Hornbeam
Blue Beech, or American Hornbeam
White Oak
Yellow Oak, or Chestnut Oak
Box Elder, or Ash-leaved Maple
Basswood, White-wood, or Linden
Sour Gum, Black Gum, Pepperidge, or Tupelo
White Ash
Black Ash, Hoop Ash, or Water Ash

White Pine, or Weymouth Pine
(*Pinus Strobus*)

A noble evergreen tree, up to 175 feet high. The lumberman's prize. Its leaves are in bunches of 5, and are 3 to 5 inches long; cones 4 to 8 inches long. Wood pale, soft, straight-grained, easily



White Pine

split. Warps and checks less than any other of our timbers. A cubic foot weighs 24 lbs. (a cubic foot of water weighs 63 lbs.). Minnesota and Manitoba to Nova Scotia and Pennsylvania.

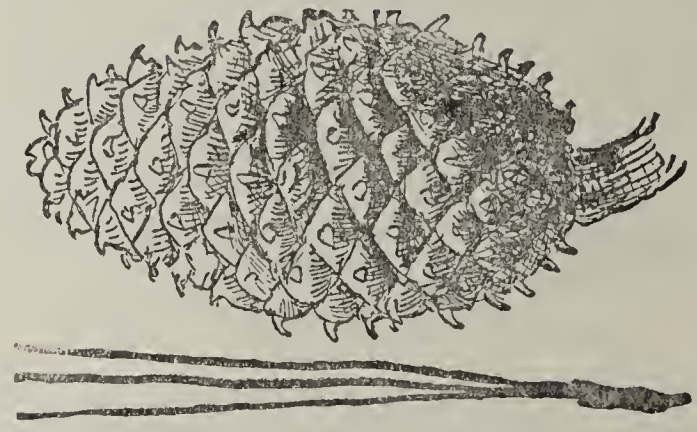
Red Pine

Red Pine, Canadian Pine, or Norway Pine
(*Pinus resinosa*)

Evergreen; somewhat less than the White Pine, with leaves 4 to 6 inches long, in bunches of 2, comes 1½ to 2½ inches long. Wood darker, harder, and heavier. A cubic foot weighs 30 lbs. Range as above.

Long-leaved Pine, Georgia Pine, Southern Pine, Yellow Pine, or Hard Pine
(*Pinus palustris*)

A fine tree, up to 100 feet high; evergreen; found in great forests in the Southern States; it supplies much of our lumber now; and most of our turpentine, tar, and rosin. Wood strong



Long-leaved Pine

and hard, a cubic foot weighs 44 lbs. Its leaves are 10 to 16 inches long, and are in bunches of 3; cones, 6 to 10 inches long. Range, Virginia to Louisiana and Florida.

Tamarack, Larch, or Hackmatack
(*Larix laricina*)

A tall, straight tree of the northern swamps yet often found flourishing on dry hillsides. One of the few conifers that shed all their leaves each fall. Leaves ½ to 1 inch long; cones ½ to ¾ inch. Wood very resinous, heavy, and hard, "a hard, soft wood"

Tamarack

very durable as posts. In Manitoba I have seen tamarack fence posts unchanged after twenty years' wear. It is excellent for firewood, and makes good sticks for a rubbing-stick fire. A cubic foot weighs 39 lbs. Found north nearly to the limit of trees; south to northern New Jersey and Minnesota.

White Spruce

(*Picea Canadensis*)

Evergreen; 60 to 70 or even 150 feet high. Leaves ½ to ¾ inch long; cones 1½ to 2 inches long, are at the tips of the branches and deciduous; the twigs smooth. Wood white, light,

White Spruce

soft, weak, straight-grained, not durable; a cubic foot weighs 25 lbs. Its roots afford the *wat-tap* or cordage for canoe-building and camp use generally. North to the limit of trees east of Rockies, south to Dakota, Wisconsin, and Maine.

Hemlock

(*Tsuga Canadensis*)

Evergreen; 60 to 70 feet high; occasionally 100; wood pale, soft, coarse, splintery, not durable. A cubic foot weighs 26 lbs. Bark full of tannin. Leaves ½ to ¾ inch long; cones about the

Hemlock

same. Its knots are so hard that they quickly turn the edge of an axe or gap it as a stone might; these are probably the hardest vegetable growth in our woods. Wisconsin to Nova Scotia and south on the mountains to Georgia.

Balsam Tree, or Canada Balsam
(*Abies balsamea*)

Evergreen; famous for the blisters on its trunk, yielding Canada balsam which makes a woodman's plaster for cuts or a waterproof cement; and for the exquisite odor of its boughs,

Balsam

which also supply the woodman's ideal bed. Its *flat* leafage is distinctive. Wood pale, weak, soft, perishable. A cubic foot weighs 24 lbs. New Alberta to Newfoundland and south to Virginia.

Bald Cypress
(*Taxodium distichum*)

A fine forest tree, up to 150 feet, with thin leaves somewhat like those of Hemlock, half an inch to an inch long; cones rounded about an inch through. Sheds its leaves each fall so is

Bald Cypress

"bald" in winter. Noted for the knees or upbent roots that it develops when growing in water. Timber soft, weak, but durable and valuable; a cubic foot weighs 27 lbs. In low wet country of Mississippi Valley and southeast coast.

Arbor-vitæ, or White Cedar
(*Thuya occidentalis*)

Evergreen; 50 to 60 feet high. Wood soft, brittle, coarse-grained, extremely durable as posts; fragrant and very light (the lightest on our list). Makes good sticks for rubbing-stick fire.

Arbor-vitæ

A cubic foot weighs only 20 lbs. The scale-like leaves are about 6 to 8 to the inch, the cones half an inch long or less. Manitoba to Nova Scotia, and Pennsylvania; south on mountains to North Carolina.

Quaking Asp, Quiver Leaf, Aspen Poplar, or Popple

(*Populus tremuloides*)

A small forest tree, but occasionally 100 feet high. Readily known by its smooth bark, of a light green or whitish color. The wood is pale, soft, close-grained, weak, perishable, and light. A

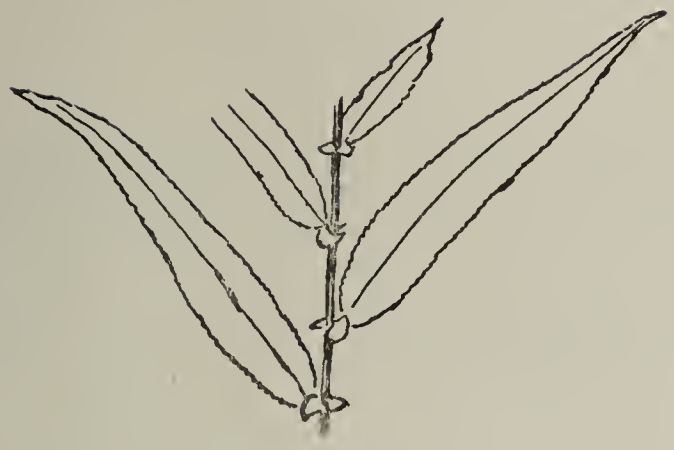
Quaking Asp

cubic foot weighs 25 lbs. Good only for paper pulp, but burns well when seasoned. When green it is so heavy and soggy that it lasts for days as a fire check or back-log. Leaves 1½ to 2 inches long. Canada and Northern States.

Black Willow

(*Salix nigra*)

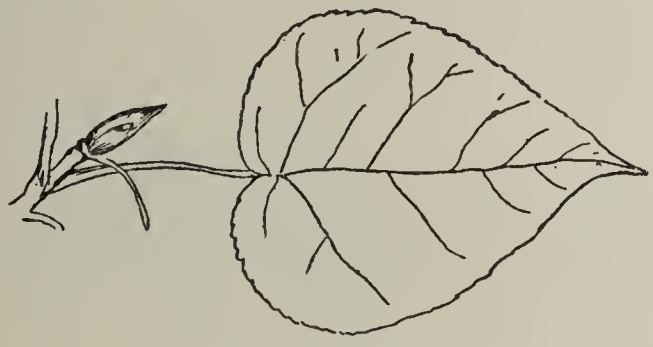
The common Willow of stream-banks, usually 20 to 40 feet high, sometimes 100. Bark nearly black. Its long, narrow, yellow-green shining leaves are sufficiently distinctive. A decoction of Willow bark and roots is said to be the best known substitute for quinine. Noted for early leafing and late shedding; leaves 3 to 6 inches long. Wood pale, weak, soft, close-grained; a cubic foot weighs 28 lbs. Manitoba to Nova Scotia and south to Gulf.



Black Willow

Balsam Poplar, Balm of Gilead, or Tacamahac
(*Populus balsamifera*)

Fifty to 60 feet ordinarily, but sometimes 100 feet high. Bark rough and furrowed. The great size of the buds and their thick



Balsam Poplar

shiny coat of fragrant gum are strong marks. Wood much as in the preceding, but weighs 23 lbs. a cubic foot. Leaves 3 to 6 inches long. Canada and Northern States.

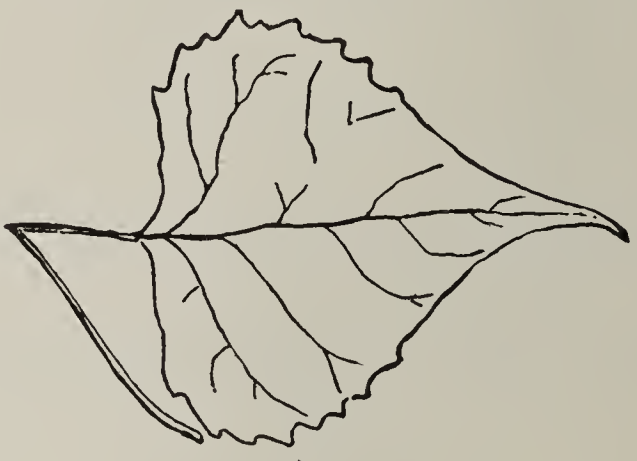
Cottonwood
(*Populus deltoides*)

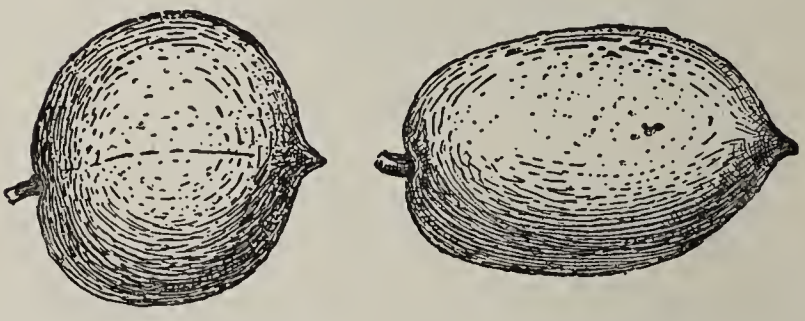
Small and rare in the Northeast. Abundant and large in West; even 150 feet high. Wood as in other poplars but weighs 42 lbs. a cubic foot. Leaves 3 to 5 inches long. Maine to Georgia and west to Alberta.

Black Walnut

(*Juglans nigra*)

A magnificent forest tree up to 150 feet high; usually much smaller in the East. Wood a dark purplish brown or gray; hard, close-grained; strong; very durable in weather or ground work, and heavy. A cubic foot weighs 38 lbs. Leaflets 13 to 23; and 3 to 5 inches long. Fruit nearly round, 1½ to 3 inches in diameter. Massachusetts to Minnesota and south to Mississippi.



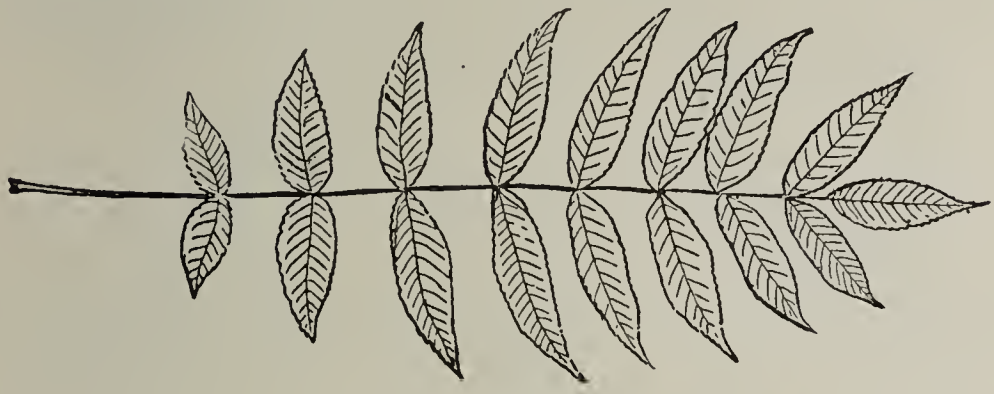


Fruit of black walnut Fruit of butternut

About half size

White Walnut, Oil Nut, or Butternut
(*Juglans cinerea*)

Much smaller than the last, rarely 100 feet high; with much smoother bark and larger, coarser, compound leaves, of fewer leaflets, but the petioles or leaflet stalks and the new twigs are covered with sticky down.



White Walnut

The wood is light brown, soft, coarse, not strong, but very enduring in weather and ground work; light;. leaves 15 to 30 inches long; leaflets 11 to 19 in number and 3 to 5 inches long; fruit oblong, 2 to 3 inches long. Nova Scotia to Minnesota and south to Mississippi.

Pecan

Pecan
(*Hicoria Pecan*)

A tall slender forest tree in low moist soil along streams, up to 170 feet in height; famous for its delicious nuts, which are smooth and thin shelled; fruit, oblong, cylindrical, 1½ to 2½ inches long. Its leaves are smooth when mature; leaflets 11 to 15, and 4 to 7 inches long; wood hard and brittle, a cubic foot weighs 45 lbs. Central Mississippi Valley.

Shagbark, Shellbark, or White Hickory
(*Hicoria ovata*)

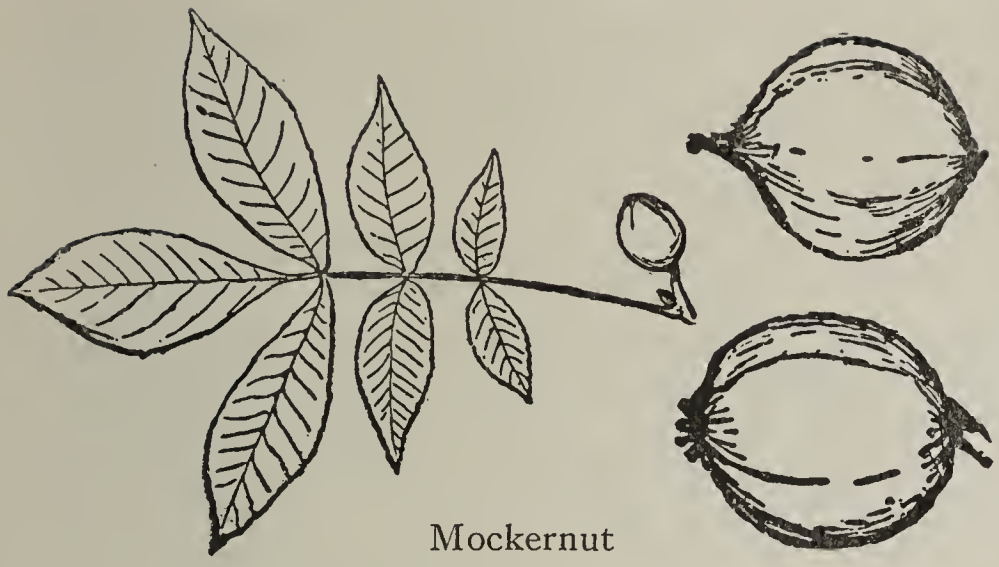
A tall forest tree up to 120 feet high. Known at once by the great angular slabs of bark hanging partly detached from its main trunk, forced off by the growth of wood, but too tough to

Shagbark

fall. Its leaves are 8 to 14 inches long, with 5 to 7 broad leaflets. The wood is very light in color, close-grained, tough, and elastic. It makes an excellent bow; is the best of fuel. A cubic foot weighs 52 lbs. Dakota to Maine and south to Mississippi.

Mockernut, White Heart, or Big-bud Hickory
(*Hicoria alba*)

A tall forest tree, up to 100 feet. Wood much like that of Shagbark, but not quite so heavy (51 lbs.). Its bark is smooth

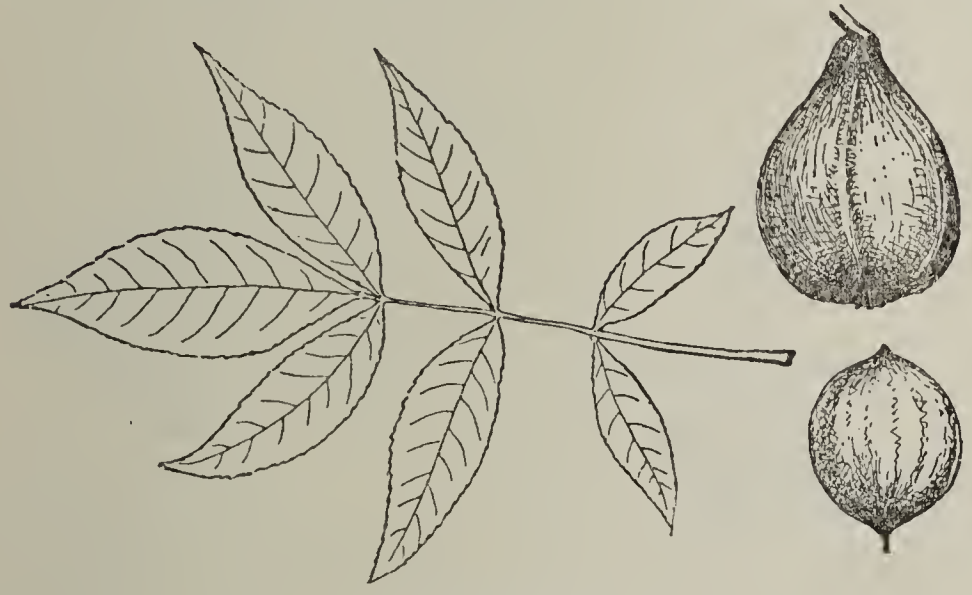


Mockernut

and furrowed like that of the Pignut. Its leaves are like those of the Shagbark, but it has 7 to 9 leaflets, instead of 5 to 7; it has a large terminal bud ½ to ¾ of an inch long, and the leaves have a resinous smell. Its nut in the husk is nearly 2 inches long; the nut shell is 4-ridged toward the point, has a very thick shell, and small, sweet kernel. Maine to Oklahoma and Florida.

Pignut Hickory
(*Hicoria glabra*)

A tall forest tree; 100 and up to 120 feet high. Wood much as in the Mockernut; bark smooth and furrowed; not loose



Pignut Hickory

plates. Leaves 8 to 12 inches long. Nut slightly or not at all angular, very thick shelled; the pear shape of fruit is a strong feature, 1¼ to 2 inches long. Maine to Nebraska and south to the Gulf.

Gray Birch, or Aspen-leaved Birch

(*Betula populifolia*)

A small tree found on dry and poor soil; rarely 50 feet high. Wood soft, close-grained, not strong, splits in drying, useless for weather or ground work. A cubic foot weighs 36 lbs. Leaves 2 to 3 inches long. It has a black triangular scar at each armpit. Quebec south to Maryland.

Gray Birch

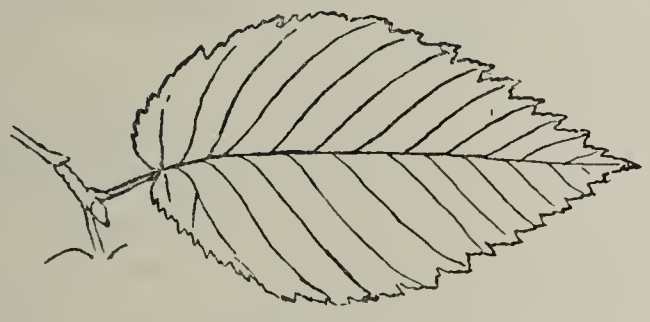
White

White, Canoe, or Paper Birch
(*Betula papyrifera*)

A tall forest tree up to 80 feet high; the source of bark for canoes, etc. One of the most important trees in the northern forest. Besides canoes, wigwams, vessels, and paper from its bark, it furnishes syrup from its sap and the inner bark is used as an emergency food. Every novice rediscovers for himself that the outer bark is highly inflammable as well as waterproof, and ideal for fire-lighting. Though so much like the Gray Birch, it is larger, whiter, and with but small black scars at each limb. The timber is much the same, but this weighs 37 lbs. Its leaf and catkin distinguish it; the former is 2 to 3 inches long. All Canada and south to Illinois.

Yellow Birch, or Gray Birch
(*Betula lutea*)

A forest tree, of 30 to 50 feet in height. Bark obviously birch, but shaggy and gray or dull yellow. Wood as in the others, but

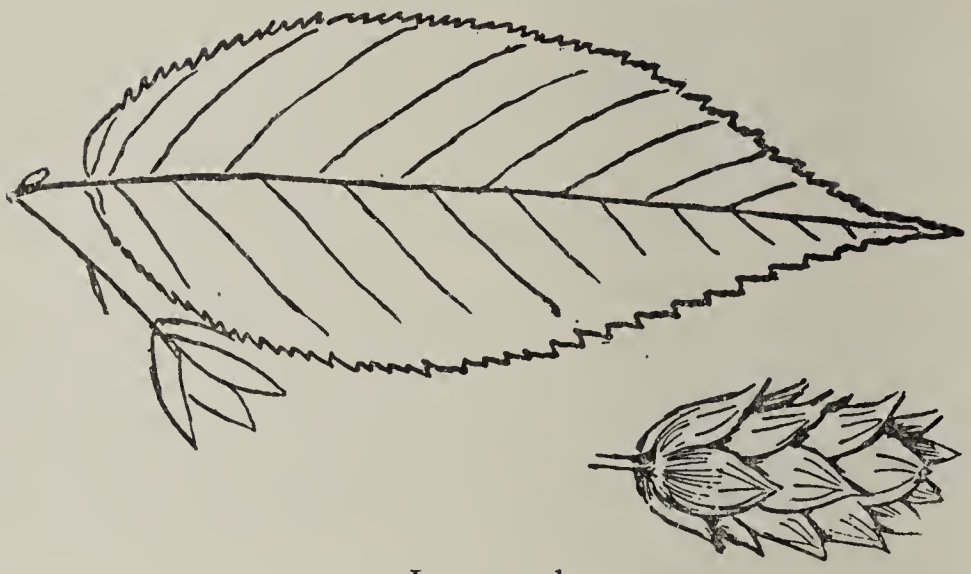


Yellow Birch

reddish. A cubic foot weighs 41 lbs. Leaves 3 to 4 inches long. Minnesota to Newfoundland and south to Virginia.

Ironwood, Hard-hack, Leverwood, Beetle-wood, or Hop Hornbeam
(*Ostyra Virginiana*)

A small tree; 20 to 30, rarely 50, feet high; named for its hardness and its hoplike fruit. Bark furrowed. Wood tough, close-grained, unsplitable. One of the strongest, heaviest, and



Ironwood

hardest of timbers. A cubic foot weighs over 51 lbs. That is, it comes near to Shagbark Hickory in weight and perhaps goes beyond it in strength and hardness. Leaves 3 to 5 inches long. Fruit 1½ to 2½ inches long. Dakota to Nova Scotia and south to Gulf.

Blue Beech, Water Beech, or American Hornbeam
(*Carpinus Caroliniana*)

A small tree, 10 to 25, rarely 40, feet high; bark smooth. Wood hard, close-grained, very strong; much like Ironwood, but lighter. A cubic foot weighs 45 lbs. Leaves 3 to 4 inches long. United States east of Missouri River.

Blue Beech

White Oak
(*Quercus alba*)

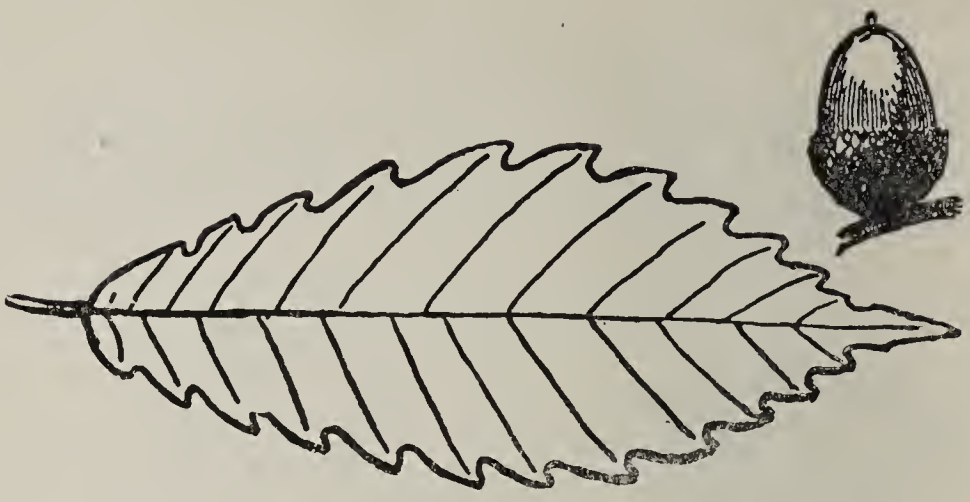
A grand forest tree; over 100 feet up to 150 feet high. The finest and most valuable of our oaks. The one perfect timber for shipbuilders, farmers, and house furnishers. Its wood is pale,

White Oak

strong, tough, fine-grained, durable, and heavy. A cubic foot weighs 46 lbs. I found that when green it weighed 68 lbs. to the cubic foot and of course sank in water like a stone. Called white from pale color of bark and wood. Leaves 5 to 9 inches long. Texas to Minnesota and easterly.

Yellow Oak, Chestnut Oak, or Chinquapin Scrub Oak
(*Quercus Muhlenbergii*)

A great forest tree; up to 160 feet high; wood as usual, but the heaviest of all when dry; a cubic foot weighs 54 lbs.; when green, it is heavier than water, and sinks at once. It is much like the Chestnut Oak but its leaves are narrower, more sharply saw-edged, and its acorns much smaller, about half the size. Its acorns ripen in one season. Leaves 4 to 6 inches long. Louisiana to Iowa and easterly to Massachusetts. (See next page.)



Yellow Oak

Red Oak

(*Quercus rubra*)

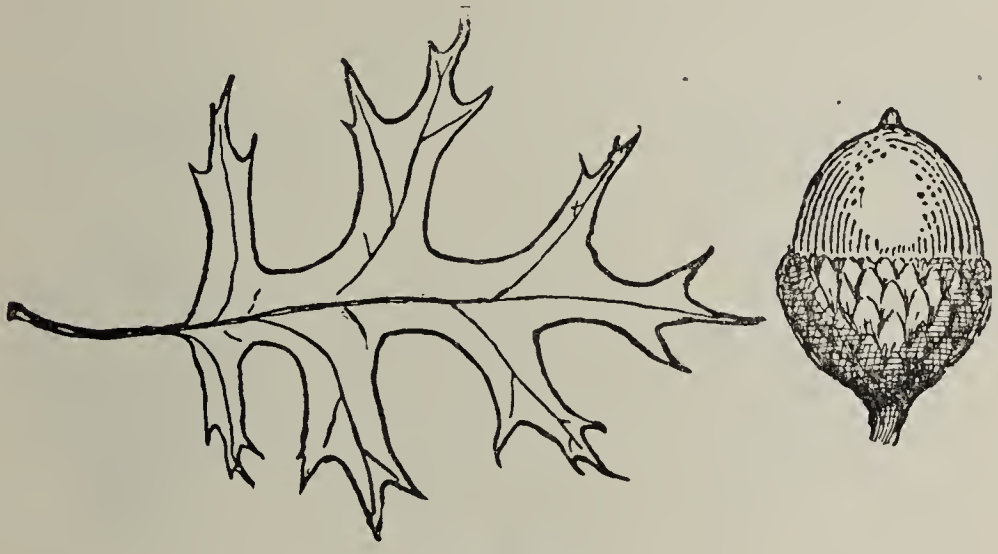
A fine forest tree, 70 to 80, or even 140, feet high. Wood reddish brown. Sapwood darker. Hard, strong, coarse-grained, heavy. A cubic foot weighs 41 lbs. It checks, warps, and does

Red Oak

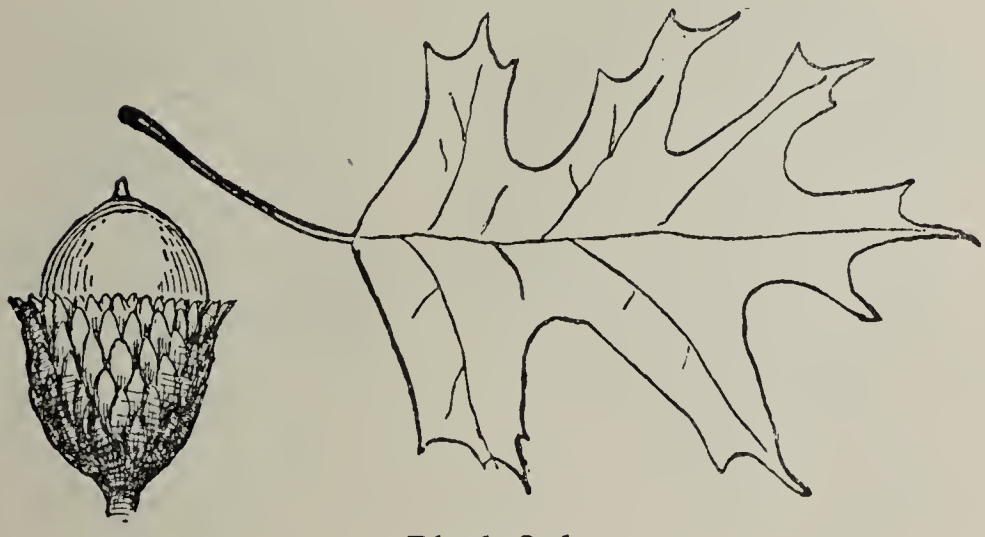
not stand for weather or ground work. The acorn takes two seasons to ripen. Apparently all those oaks whose nuts take *two* seasons to ripen have wood that soon rots. The low, flat shape of the cup is distinctive; in fact, it has no cup, it has a saucer; leaves 4 to 8 inches long. Missouri to Minnesota and east to Atlantic.

Scarlet Oak
(*Quercus coccinea*)

Seventy to 80 or even 160 feet high. Scarlet from its spring and autumn foliage color. The leaves are a little like those of the Black Oak, but are frondlike with three or four deep, nearly even, cuts on each side. The acorns of this can be easily matched among those of the Black Oak, but the kernel of the Scarlet is white, that of the Black is yellow; they take two seasons to ripen. Wood much as in Red Oak but weighs 46 lbs. per cubic foot. Leaves 4 to 8 inches long. Massachusetts to Georgia and Iowa.



Scarlet Oak



Black Oak

Black Oak, Golden Oak, or Quercitron
(*Quercus velutina*)

Seventy to 80 or even 150 feet high. The outer bark is very rough, bumpy, and blackish; inner bark yellow. This yields a yellow dye called *quercitron*. The leaf is of the Scarlet Oak style, but has uneven cuts and usually a large solid area in the outer half. The wood is hard, coarse-grained, checks, and does not stand for weather or ground work. A cubic foot weighs 44 lbs. Wisconsin to Maine and south to Gulf.

Pin Oak, or Swamp Oak
(*Quercus palustris*)

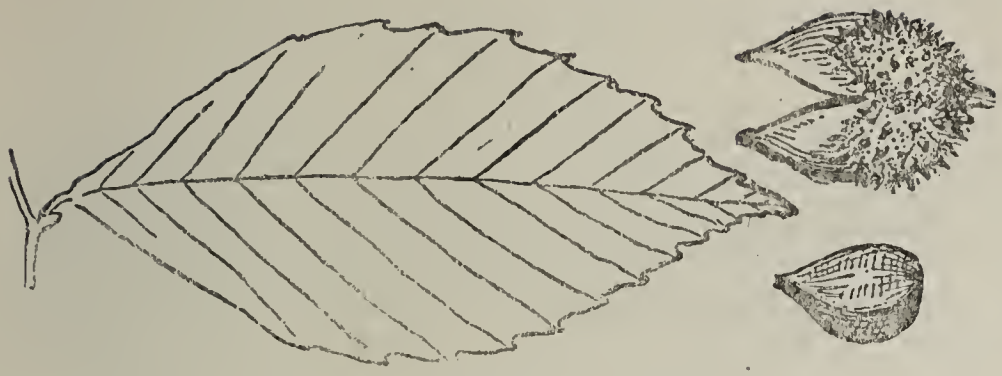
Fifty to 70 or even 120 feet high, in swampy land. Wood hard, coarse-grained, very strong and tough. Will not stand

Pin Oak

exposure next to ground. A cubic foot weighs 34 lbs. Its acorns take two seasons to ripen. Leaves 4 to 6 inches long. In moist woods and along swamp edges. Massachusetts to Iowa and Arkansas.

Beech
(*Fagus grandifolia*)

In all North America there is but one species of Beech. It is a noble forest tree, 70 to 80, and occasionally 120, feet high; readily distinguished by its unfurrowed ashy gray bark. Wood hard, strong, tough, close-grained, pale, heavy. Leaves 3 to 4 inches long. A cubic foot weighs 43 lbs. Wisconsin to Nova Scotia and south to Gulf.



Beech

Chestnut

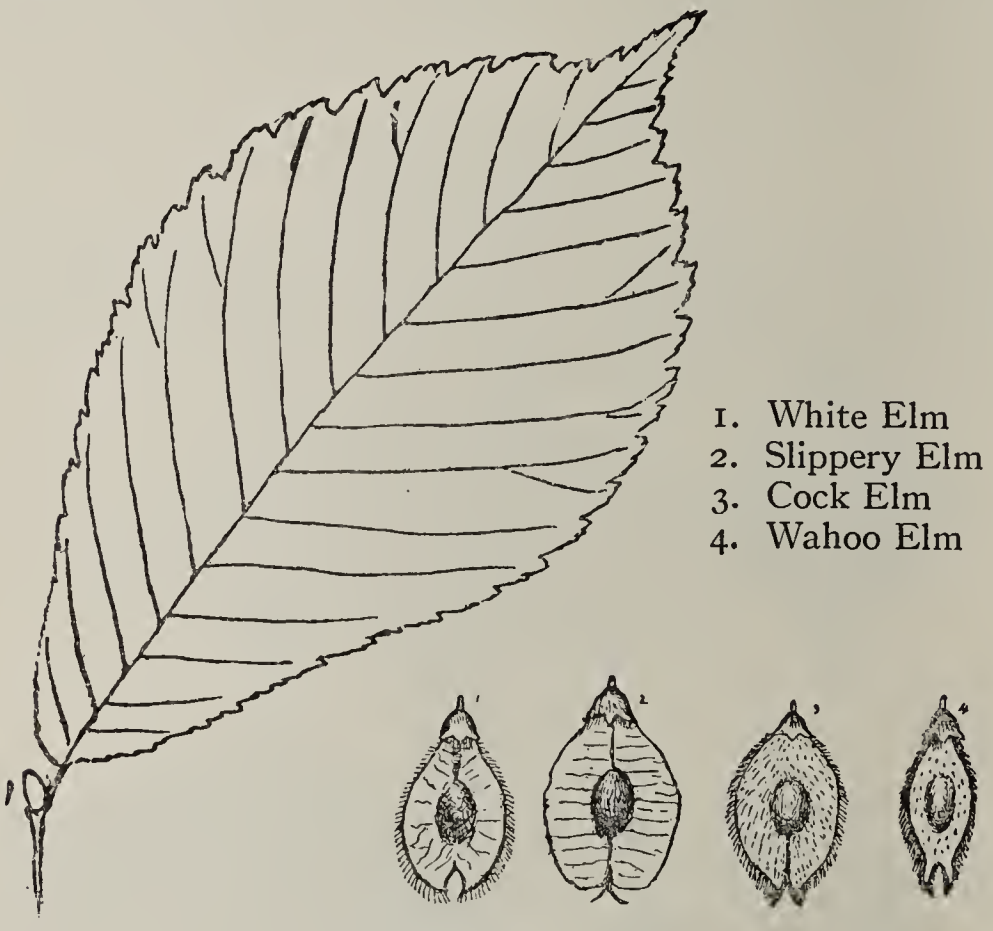
(*Castanea dentata*)

A noble tree, 60 to 80 or even 100 feet high. A cubic foot of the wood weighs 28 lbs. Leaves 6 to 8 inches long. Massachusetts to Indiana and Mississippi.

Chestnut

Slippery Elm, Moose, or Red Elm
(*Ulmus fulva*)

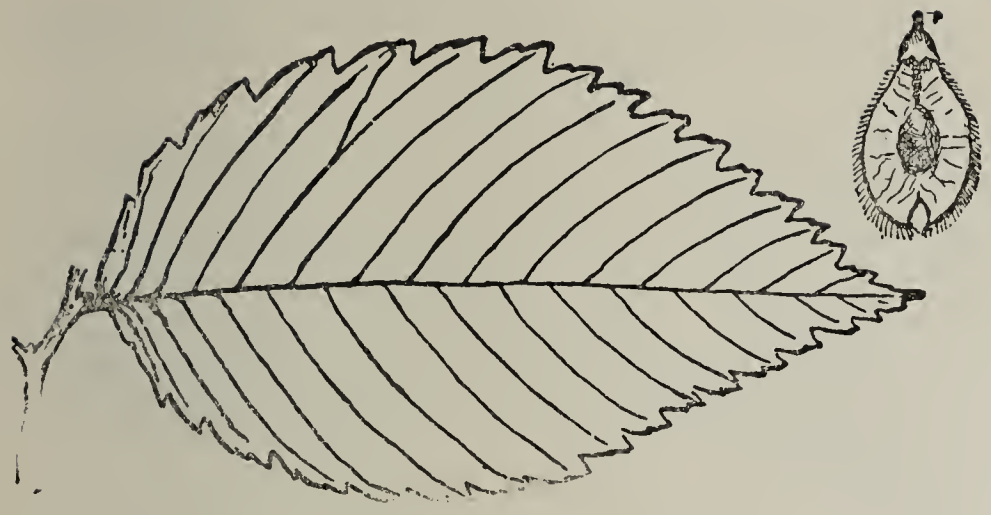
Smaller than White Elm, maximum height about 70 feet. Wood dark, reddish, hard, close, tough, strong; durable next the ground; heavy; a cubic foot weighs 43 lbs. Its leaves are *larger and rougher* than those of the former. Four to 8 inches long, and its buds are hairy, not smooth. Maine to Minnesota and south to Gulf.



Slippery Elm

White Elm, Water, or Swamp Elm
(*Ulmus Americana*)

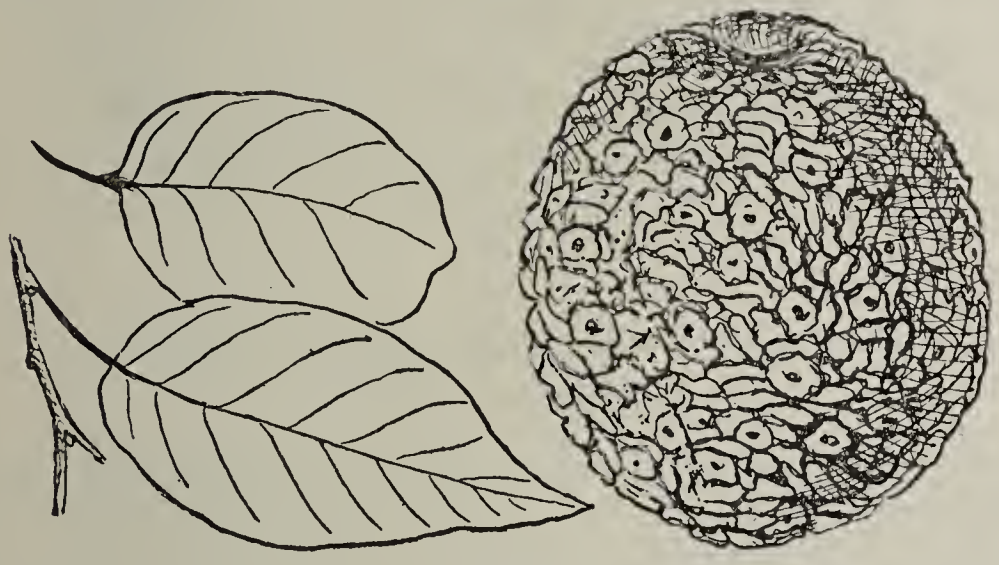
A tall, splendid, forest tree; commonly 100, occasionally 120, feet. Wood reddish brown; hard, strong, tough, very hard to split. A cubic foot weighs 41 lbs. Soon rots near the ground. Leaves 2 to 5 inches long. Manitoba to Nova Scotia and south to Gulf. (See next page.)



White Elm

Osage, Orange, Bodarc (Bois D'arc), or Bow-wood
(*Toxylon pomiferum*)

A small tree, rarely 60 feet high. Originally from the middle Mississippi Valley, now widely introduced as a hedge tree. Famous for supplying the best bows in America east of the Rockies. Wood is bright orange; very hard, elastic, enduring, and heavy. Leaves 3 to 6 inches long. A cubic foot weighs 48 lbs.



Osage

Tulip Tree, White-wood, Canoe Wood, or Yellow Poplar
(*Liriodendron tulipifera*)

One of the noblest forest trees, ordinarily 100 feet, and sometimes 150 feet, high. Noted for its splendid, clean, straight column; readily known by leaf, 3 to 6 inches long, and its tulip-like flower. Wood soft, straight-grained, brittle, yellow, and very light; much used where a broad sheet easily worked is needed but will not stand exposure to the weather; is poor fuel; a dry cubic foot weighs 26 lbs. Mississippi to Atlantic, Lake Ontario to Gulf.

Tulip Tree

Sassafras, or Ague Tree
(*Sassafras sassafras*)

Usually a small tree of dry, sandy soil, but reaching 125 feet high in favorable regions. Its wood is dull orange, soft, weak, coarse, brittle, and light. A cubic foot weighs 31 lbs. Very durable next the ground. Leaves 4 to 7 inches long. Maine to Iowa and Texas to Atlantic. (See next page.)

Sassafras

Sweet Gum, Star-leaved, or Red Gum, Bilsted, Alligator Tree, or Liquidambar

(*Liquidambar styraciflua*)

A tall tree up to 150 feet high of low, moist woods, remarkable for the corky ridges on its bark, and the unsplitable nature of its weak, warping, perishable timber. Heart-wood reddish brown, sap white; heavy, weighing 37 lbs. to cubic foot. Leaves 3 to 5 inches long. Massachusetts to Missouri and south to Gulf. (See next page.)

Sycamore, Plane Tree, Buttonball, or Buttonwood

(*Platanus occidentalis*)

One of the largest of our trees; up to 140 feet high; commonly hollow. Wood light brownish, weak; hard to split; heavy for its strength. A cubic foot weighs 35 lbs. Little use for weather work. Famous for shedding its bark as well as its leaves. Leaves 4 to 9 inches long. Canada to the Gulf. (See next page.)

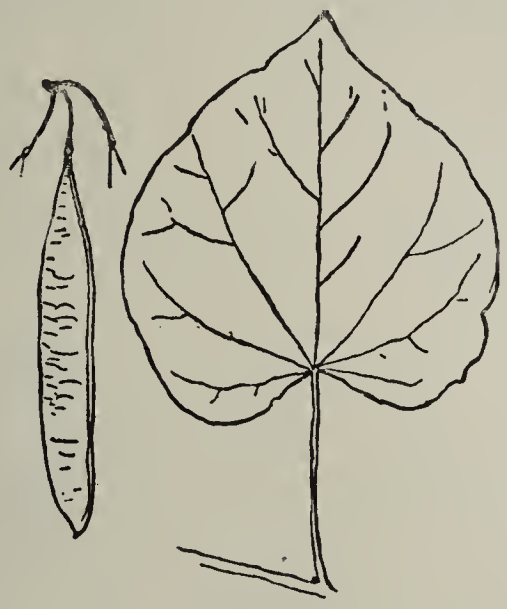
Sweet Gum

Sycamore

Red-bud, or Judas Tree
(*Cercis Canadensis*)

Small tree of bottom lands, rarely 50 feet high; so called from its abundant spring crop of tiny rosy blossoms, coming before the leaves, the latter 2 to 6 inches broad. "Judas tree" because it blushed when Judas hanged himself on it (Keeler). Its wood is dark, coarse, and heavy.

A cubic foot weighs 40 lbs. Maryland to Iowa and southward.



Red-bud

Sugar Maple, Rock Maple, or Hard Maple
(*Acer saccharum*)

A large, splendid forest tree, 80 to 120 feet high; red in autumn. Wood hard, strong, tough, and heavy but not durable.

Sugar Maple

A cubic foot weighs 43 lbs. It enjoys with Beech, Hickory, etc., the sad distinction of being a perfect firewood. Thanks to this it has been exterminated in some regions.

Bird's-eye and curled Maple are freaks of the grain. Leaves 3 to 5 inches long. Its sap produces the famous maple sugar. Manitoba to Nova Scotia and south to Gulf.

Silver Maple, White, or Soft Maple
(*Acer saccharinum*)

Usually a little smaller than the Sugar Maple and much inferior as timber. Wood hard, close-grained. A cubic foot weighs 33 lbs. Leaves 5 to 7 inches long. This tree produces a little sugar. It is noted for its yellow foliage in autumn. Nova Scotia to Minnesota and south to Oklahoma and Georgia.

Silver Maple

Red, Scarlet, Water, or Swamp Maple
(*Acer rubrum*)

A fine tree the same size as the preceding. Noted for its flaming crimson foliage in fall, as well as its red leaf-stalks, flowers, and fruit earlier. Its wood is light-colored, tinged

reddish, close-grained, smooth with varieties of grain, as in Sugar Maple; heavy. A cubic foot weighs 39 lbs. Leaves 2 to 6 inches long. Quebec to Minnesota and south to Gulf.

Red Maple

Box Elder, or Ash-leaved Maple
(*Acer Negundo*)

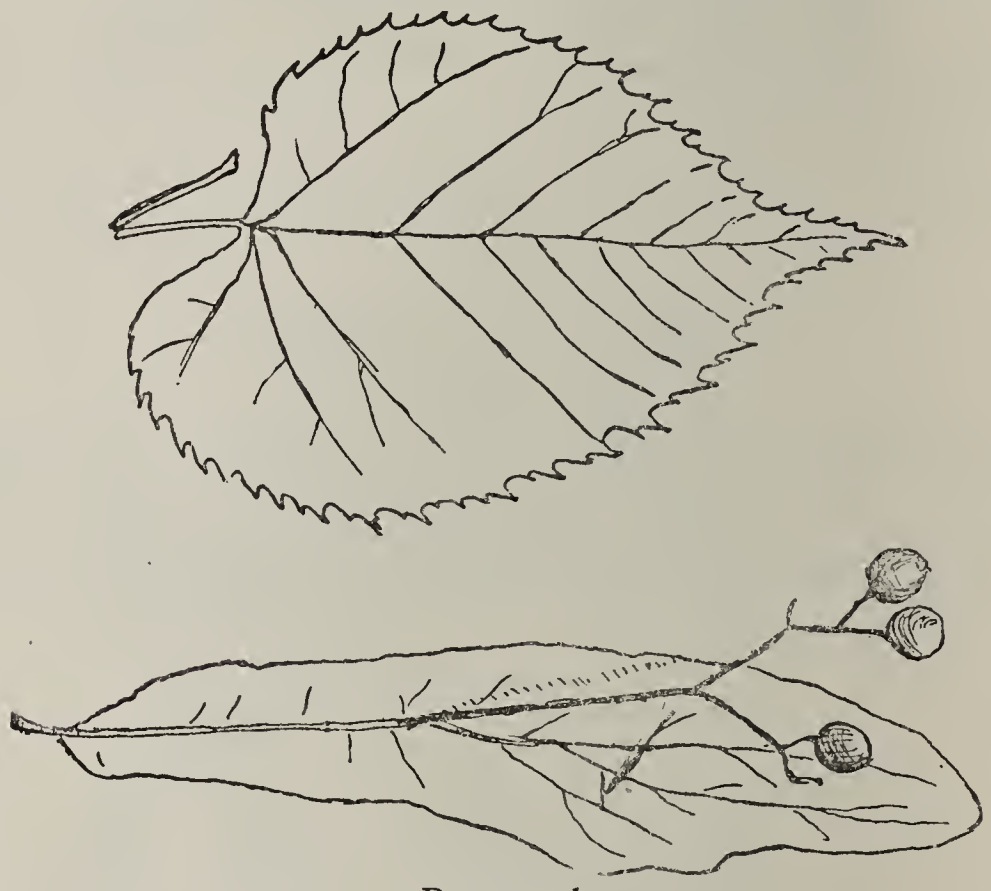
A small tree, 40 to 50 up to 70 feet high, found chiefly along streams. Wood pale, soft, close-grained, light. A cubic foot weighs 27 lbs. Poor fuel. Makes paper-pulp. Leaflets 2 to 4 inches long. Massachusetts to British Columbia south to Mexico and Alabama.

Box Elder

Basswood, White-wood, Whistle-wood, Lime, or Linden
(*Tilia Americana*)

A tall forest tree 60 to 125 feet; usually hollow when old. Wood soft, straight-grained, weak, white, very light. A cubic foot weighs 28 lbs. It makes a good dugout canoe or sap trough.

The hollow trunk, split in halves, was often used for roofing. Poor firewood, and soon rots, makes good rubbing-sticks for friction fire. Its inner bark supplies coarse cordage and matting. Its buds are often eaten as emergency food. Leaves 2 to 5 inches wide. Manitoba to Nova Scotia and south to Texas.



Basswood

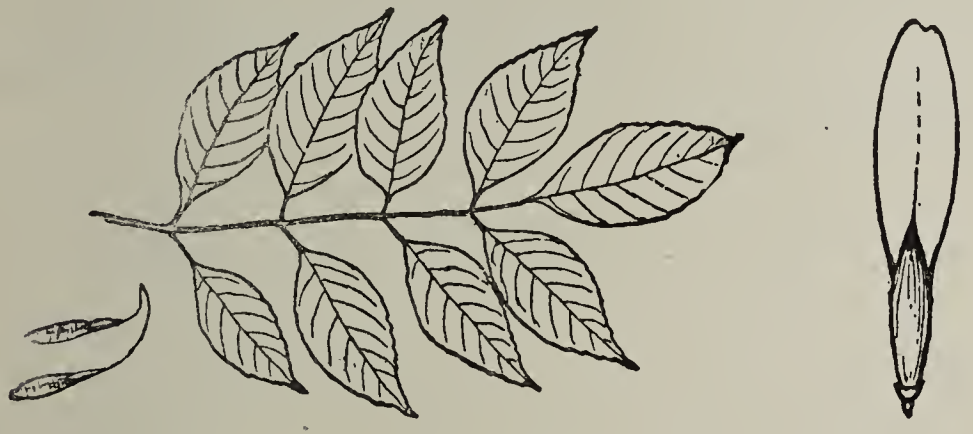
Sour Gum, Black Gum, Pepperidge, or Tupelo
(*Nyssa sylvatica*)

A forest tree up to 110 feet high; in wet lands. Wood pale, very strong, tough, unsplitable, and heavy. A cubic foot weighs 40 lbs. Used for turner work, but soon rots next the ground. Leaves 2 to 5 inches long. Massachusetts to Wisconsin and south to Gulf. (See next page.)

Sour Gum

White Ash
(*Fraxinus Americana*)

A fine forest tree on moist soil; 70 to 90 or even 130 feet high. Wood pale brown, tough, and elastic. Used for handles, springs,

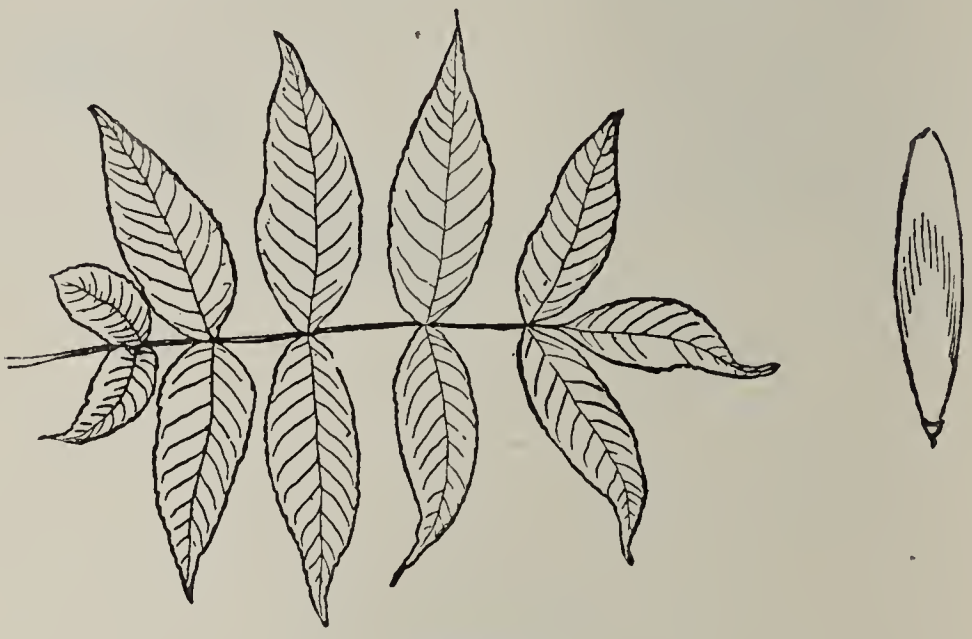


White Ash

bows, also arrows and spears; heavy. A cubic foot weighs 41 lbs. Soon rots next the ground. Called white for the silvery under sides of the leaves; these are 8 to 12 inches long; each leaflet 3 to 5 inches long. Mississippi Valley and east to Atlantic.

Black Ash, Hoop Ash, or Water Ash
(*Fraxinus nigra*)

A tall forest tree of swampy places; 70, 80, or rarely 100 feet high. Wood dark brown, tough, soft, coarse, heavy. A cubic



Black Ash

foot weighs 39 lbs. Soon rots next to the ground. Late in the spring to leaf, and early to shed in the fall. The leaves are 12 to 16 inches long; its leaflets, except the last, have no stalk, they number 7 to 11, are 2 to 6 inches long. Nova Scotia to Manitoba, and south to Virginia.

CHAPTER XIV

HOW TO HAVE A GOOD GARDEN[1]

"Five hundred million dollars! Boys, that's a heap of money."

Now, let your imagination run a few moments and just think of the enormous piles of potatoes and beets and onions and ears of corn and bushels of carrots and radishes, to say nothing at all of the wagon-loads of cabbage and pumpkins and melons that you could buy with $500,000,000. Yet that is the amount of food that the boys and girls, men and women of America grew last summer in their back-yard gardens. Then, too, just remember, please, that the mere food produced was only part of the adventure. Think of the fine exercise in the open air; think of the friendly spirit of competition between all the folks of a neighborhood to see who would have lettuce first or grow the largest cucumber. Just think of the better diet, just think of the saving in money, just think of the personal satisfaction of using all your spare minutes being a producer. A good garden is an achievement and all achievements are worth while to a live boy. What a challenge are the weeds and the bugs! No boy but a real boy can grow a real garden.

The back-yard garden has come to stay, too. There will be more of them each year than the year before, and they will be better gardens, for thousands upon thousands of boys are fast becoming experienced. This brief chapter is not meant to be a garden manual—there are any quantities of those available at any library. The purpose of these pages is to get you inter-

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[1] Adapted from pamphlet, "War Gardening and Home Storage of Vegetables," copyright, 1919, by National War Garden Commission; used by permission.

ested, for you can only actually learn to garden by gardening. Here is the beginning and the ending of the whole thing:

First. You must hoe out your own experience.

Second. Make early preparations. Get a good piece of ground in the fall, manure it, and turn it over once.

Third. Get first-class seed, plant it at the right time (see table, page 277), and plant it in the right way.

Fourth. Begin early to hoe and weed, and keep hoeing and weeding as long as necessary to insure a splendid crop.

Here is a formula which will be found to insure success: Intelligence, work and perseverance, good seed, rain and sunshine. Result: Quantities of fresh vegetables, a substantial money-saving, increased health, and the satisfaction of doing a patriotic service.

Garden Plan

Have a plan for your garden—drawn to scale on paper—before you start, to give proper order in planting and enable you to buy the right amount of seed in advance while the selection is good.

Put in one general group small plants like beets, onions, lettuce, carrots, radishes, and parsnips. In another general group put larger plants like corn, tomatoes, and potatoes. Spreading ground vines, like melons and cucumbers, which need wider spacing, should be put in another general group. The reason for this grouping is that the various plants in a group need similar general treatment as well as spacing.

In making a plan provide space in which to enter costs and yield of the various crops. This will give you a complete record, which will be useful another year. Another helpful use of the plan is that it will guide you in the rotation of next year's crops. For this purpose save your plan for next season.

Sunshine

In the location of a garden, it is not always possible to choose conditions as to sunlight. It is important, therefore, that in the arrangement of the various kinds of vegetables which are to be planted, due care should be given to providing the greatest exposure to the sun for those crops which need it most. Those plants which must ripen their fruits, such as tomatoes and eggplant, require the greatest amount of sunshine; while lettuce, spinach, kale, and other leaf crops require relatively less. Foliage crops must have at least three hours of sunlight a day and plants which ripen fruits at least five hours a day. This is important.

Vary from Last Year's Plan

It is important to remember that plant diseases and insects are apt to thrive in a spot in which they have become established. For this reason those who make gardens this year should take care not to place the individual crops in the spot in which the same crops grew last year. Varying the arrangement of the garden in this way will reduce the danger from disease and insects. The same vegetables in the same place each year exhaust certain food elements, and reduced yields are sure to result.

Surplus Products

At times, even with the best of planning, a gardener will find that his garden has matured more of some varieties of vegetables than can be used immediately. None of this excess should be wasted and there is no occasion for waste. If there is no ready market for the surplus it should be prepared for winter by either canning or drying. By modern methods either canning or drying may be done with little expense of time, trouble, or financial outlay. By using the cold-pack method, as small a quantity as a single can or jar may be put up in a short time. With proper instructions it is possible for you to dry a handful of peas or beans, sweet corn, a few sweet potatoes or turnips, or small quantities of many other vegetables with practically no expenditure of time.

PLAN OF GARDEN

50 by 75 feet

In this plan careful attention has been paid to proper relation of the season's crops and to a continuous supply of the more important vegetables.

Hot Bed	Cold Frame	Asparagus	Rhubarb

ARRANGEMENT OF SEASON'S CROPS

Peas, followed by late Tomatoes
Peas, followed by Celery
Onion Sets, followed by Turnips
Corn, followed by Spinach
Beans (bush), followed by Beets
Beets, ½ row; Carrots, ½ row, followed by Corn
Turnips, followed by Bush Beans
Potatoes, followed by Spinach
Spinach, followed by Potatoes
Cabbage, with Lettuce and Radishes between, followed by Carrots
Beans, Bush Lima
Chard, ¾ row; Parsley, ¼ row

Parsnips, ¾ row (radishes to mark row); Salsify, ¼ row
Corn, followed by Kohlrabi, ½ row; Cauliflower, ½ row
Peas, followed by Corn
Beans, Bush Lima
Early Potatoes, followed by late Cabbage
Early Tomatoes
Peppers, ½ row; Potatoes, Okra or Eggplant, ½ row
Potatoes
Potatoes
Pole Lima Beans
Pole Beans
Corn
Corn
Corn

Cucumbers	Squash (bush crook neck)	Squash (winter)	Musk-melon

Rows are 30 inches apart. If soil is very fertile rows may be closer.

Planting was begun at hotbed end of garden and plantings were made a few days apart to insure a constant supply of vegetables.

The Soil and Manures

The back-yard gardener must use the soil he has, but he can improve it if it is poor, and he must do this as far as possible. Stable manure will help even the richest soil, and you are not likely to use too much of it. During a single season professional gardeners apply as much as six inches of it. From 400 to 600 pounds can be used to advantage on a plot twenty by twenty feet. Coarse manure should be applied and thoroughly plowed or spaded under in the fall. In the spring, fine, rotted manure is applied, just before plowing or spading, preceding the planting of any crop. If the ground is fairly rich, and well-rotted manure is scarce, the manure may be scattered in the row only, and should be mixed into the soil before the planting of the seed.

Loam is the best garden soil. Sand, with manure, gives good results. Clay is hardest to work, but is greatly improved by well-rotted manure and vegetable matter—called humus. These should be well worked in with hoe and rake. Sifted coal ashes, entirely free from clinkers, will help loosen clay when mixed in, but will not remove an acid condition nor increase fertility.

Compost

Compost is especially desirable when quick growth is wanted Compost is thoroughly rotted manure or organic material. It is prepared from six to twelve months before being used, by putting the manure and other material in piles.

Besides the usual waste of garden rubbish, there is a large waste of leaves, weeds, and the skins and other unused portions of fruits and vegetables. These should all be thrown on the compost pile to decay for use on the garden next spring. Destroy all plants which are diseased. The compost pile should be built up in alternate layers of vegetable refuse a foot thick and earth an inch or more thick. The earth helps to rot the vegetable matter when mixed with it.

If the pile can be forked over once a month when not frozen and the contents well mixed together, they will decay quite rapidly and be in good usable condition in the spring. The compost may be either spread over the garden and plowed under, or it may be scattered in the rows before the seed is sown. This

is, of course, not as rich as stable manure, but it is a good substitute.

Compost is also used as a top dressing during the growing season for hastening growth.

In planting a permanent garden, a space should be reserved near the hotbed or seed bed, and in this space should be piled, as soon as pulled, all plants which are free from diseases and insects. This applies to all vegetables and especially to peas and beans, as these belong to a group of plants which take nitrogen from the air, during growth, and store it in their roots. When these plants are decayed they will return to the soil not only much of the plant food taken from it during their growth, but additional nitrogen as well. Nitrogen in the soil is necessary for satisfactory leaf growth. The material so composted should be allowed to decay throughout the winter, and when needed should be used according to the instructions given for using compost. The sweepings of pigeon lofts or chicken coops make valuable fertilizer. When cleaning roosts from day to day add one-quarter as much acid phosphate as sweepings. When needed apply one pound of this mixture to every five square feet of ground, mixing it thoroughly into the soil.

Prepared sheep manure, where procurable at a reasonable price, is possibly the safest concentrated fertilizer. It should be used in small quantities rather than spread broadcast. Scatter it along the row before seed is sown or apply by mixing it with water in a pail, stirring the mixture to the consistency of thin mush, and pouring it along the rows of the plants.

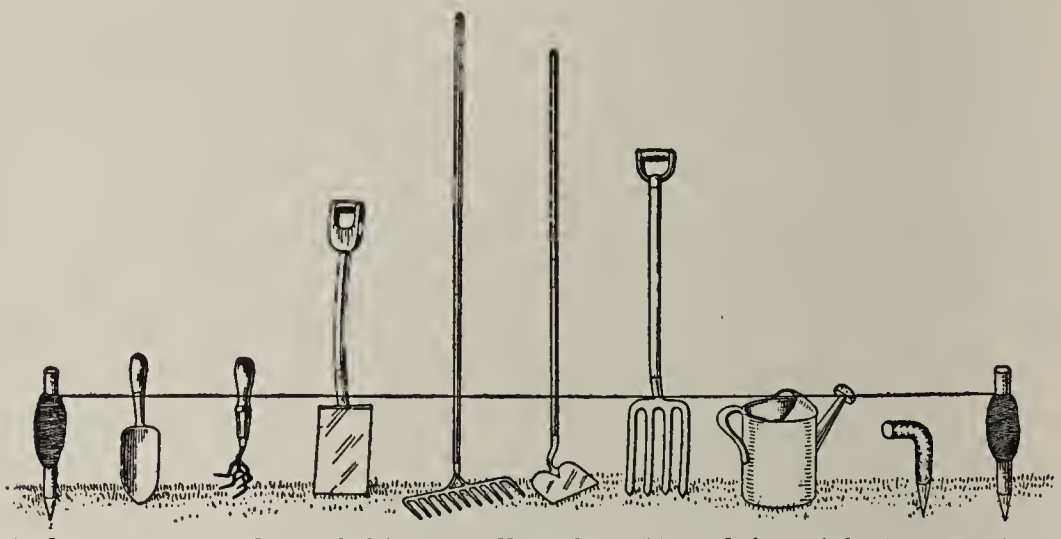
Green Manure

Green manure is useful as a fertilizer. It consists of green plants turned under by plowing or spading. Rye is the most satisfactory for this purpose. If planted in July or August, the crop may be turned under in the fall if early spring planting is desired. If planted later, it is usually turned under in the spring. When not turned under until spring, the growth will prevent the leaching of soluble plant food or the washing away of rich soil.

In sowing rye for this purpose, use at the rate of one pound of seed to a strip of ground fifty feet long and ten feet wide. If the ground is rough or hard, it should be cultivated just before

the seed is sown, and then cultivated again to cover the seed. Sow the seed between the rows of crops not yet gathered. Rye is very hardy and will sprout even though there is frost nearly every night. At a cost of about five cents for a pound of seed, a garden of ten by fifty feet can thus be treated to an application of green manure. The grass rye plants soon decay when turned under, and answer the same purpose as a light dressing of manure.

Green manure, however, should not be relied upon to do the work of stable manure, as it does not provide phosphorus or potassium.



Tools most commonly needed in a small garden. From left to right, between the balls of cord, they are: Trowel, weeder, spade, steel toothed rake, hoe, garden fork, watering pot and dibble.

Lime

Land which has long been unused, or land in lawns, is likely to be sour. To remedy this condition, apply evenly one pound of air-slaked lime or two pounds of ground limestone to every thirty square feet. This lime should be applied and raked in to a depth of two inches when the seed bed is being prepared in the spring. Instead of lime, two pounds of unleached wood ashes may be used. Do not apply lime at the same time as manure or mixed fertilizers, as it will cause loss of nitrogen.

Outdoor Hotbeds

For early planting a hotbed may be made, located in a sheltered spot with southern exposure, where it will receive a generous

supply of sun. A width of six feet is desirable and the length should be such as will enable the use of standard three by six foot hotbed sash. A simple, boxlike frame, twelve inches high in front, will hold the sash and give a better angle for the rays of the sun.

Dig a pit one and one-half to two feet deep, the size of the sash frame to be used. Line the sides of this with boards or planks, brick or concrete, and make a tile drain, or place stones on the bottom of the pit, to carry off surplus water. This pit is filled with fresh horse manure. The manure will require special treatment before being placed in the pit. It should be thrown into a pile and allowed to heat. When it has heated and is steaming, fork it over into a new pile, throwing the outside material into the center. When the new pile has become well heated, fork the material once more into a new pile. This will require from ten days to two weeks and is important in that it gets rid of excessive heat. After this process fill the pit with the manure, packed down firmly and evenly, level with the surface of the surrounding earth. On top of this manure make a covering of good garden loam three to four inches deep.

When the sash has been put in place the manure will generate heat, in addition to the heat that will be derived from the sun. After this heat has reached its highest point and dropped back to between 80 to 90 degrees F. the seed should be planted. Use the best seed obtainable. Until the seed germinates, the hotbed should be kept shaded to hold moisture. This can be done by spreading over the sash strips of old carpet, heavy cloth, or newspapers. After germination strong light will be needed. The plants must be watered each morning on clear days and the sash left partially open for ventilation, as it is necessary to dry the foliage to prevent mildew.

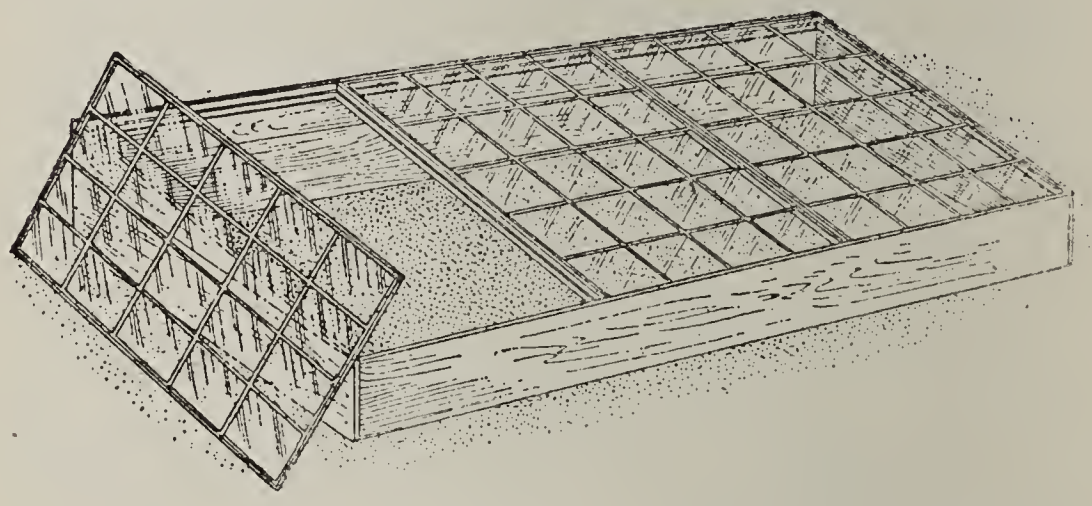
Proper ventilation is essential to the production of strong, healthy plants. The sash should be raised during the warmest part of the day on the side opposite the direction from which the wind is blowing. By opening it in this way instead of facing the wind, the hotbed receives fresh air without receiving direct draft. On cold days raise the sash slightly three or four times a day for a few minutes only. In severe weather cover the beds with mats, straw, or manure to keep in as much heat as possible.

About two weeks before transplanting time the sash should be removed during the day to "harden" the plants. While in the hotbed the plants should be thoroughly watered, but the water should not reach the manure underneath. Early morning is the best time for watering, so that the plants will be dried before night.

An outdoor hotbed of this character should be started in the early spring—February or March.

The Cold Frame

A cold frame is useful for hardening plants which have been started in the hotbed. It is built like a hotbed, but on the surface of the ground, without the pit or manure. Good, rich soil should be used and the soil kept slightly moist. In mild climates the cold frame may be used instead of a hotbed for starting plants. It is also used in the fall and early winter for growing lettuce, radishes, carrots, and parsley.



Procure Seed Early

Seed shortage was a handicap to many gardeners last year. This year the planting of gardens will be increased and the demand for seed even greater than in 1918. It is important, therefore, that the home gardener should procure his supply of seed early—well in advance of planting time. Be sure to patronize a reliable dealer, as quality is vital.

Use Seed Sparingly

Home gardeners often plant seed thickly to make sure of a good stand. This is a wasteful method, excepting with such vegetables as will produce young plants which may be used as greens. The better way is to plant according to the directions given in the planting table.

The pronounced seed shortage this year makes it imperative that no seed be wasted.

Testing Seed

A simple test will give useful advance information of the germinating value of seed. This test is useful as enabling the gardener to determine whether or not seed have been properly cured and are otherwise in good condition. Seed which are too old or have been kept under unfavorable conditions are unsatisfactory.

To test, plant twenty-five to fifty seed of each variety in an outdoor seed box, or place between moist blotters or cloth between two plates. Germination should take place within two to eight days and the number of seedlings which grow will show the percentage of germination.

The seedlings should be kept for planting to prevent waste.

How Much Seed to Buy

The following amounts of seed will plant in each case a garden row 100 feet long. Measure your rows and buy accordingly. Also compare your figures with planting table on page 277.

String Beans	½ to 1 pint	Eggplant	⅓ ounce
Lima Beans	½ to 1 pint	Kale, or Swiss Chard	½ ounce
Cabbage	¼ ounce	Parsley	¼ ounce

Carrot	1 ounce	Parsnip	½ ounce
Cauliflower	1 packet	Vegetable Oyster (Salsify)	½ ounce
Celery	¼ ounce	Onion Sets (Bulbs)	1 quart
All Squash	½ ounce	Onion Seed	1 ounce
Beets	2 ounces	Peas	1 to 2 pints
Sweet Corn	½ pint	Radish	1 ounce
Lettuce	½ ounce	Spinach	1 ounce
Muskmelon	½ ounce	Tomatoes	⅛ ounce
Cucumber	½ ounce	Turnip	½ ounce

One or two pecks of early potatoes and one-half to one bushel of late potatoes are enough to plant to supply four persons.

Indoor Planting

Earlier crops can be secured by planting certain seed indoors and setting the young plants out in the open garden after the weather becomes warm. This may be done with tomatoes, cabbage, lettuce, cauliflower, peppers, and eggplant.

Any wooden box, shallow and wide, will make an indoor garden. Put one inch of gravel or cinders in the bottom for drainage, and fill to the top with good soil. Rows of plants may be two inches apart.

Plant eight or ten seed to the inch, keep the soil damp, and set the box in a window. When the plants are an inch high transplant them to other seed boxes, spacing the plants two inches apart. This insures sturdy plants with good root systems.

Transplanting

Before transplanting the plants to the garden, set the box outdoors, in mild weather, to harden the plants. Set out each plant with a ball of the box dirt sticking to the roots. Thorough watering several hours before transplanting causes the earth to stick as required.

If the root system is broken in the removal, trim away some of the larger leaves of the plants. In moist ground open a hole with a trowel. Make the hole larger than is needed to hold the roots and a little deeper than the root grew. Place roots in hole, and, with the hands, pack the soil firmly around the plant. In dry soil pour a pint of water into each hole before inserting

PLANTING TABLE

Vegetable	Quantity required for 100 feet of row	Distance Apart in Inches		Depth of Planting Inches	Time of Planting	Mature (In days except as noted)
		Rows	In Row			
Asparagus, seed	1 oz.	12 to 24	3 to 5	½ to 1	Early spring	3 to 4 yrs.
Asparagus, plants	60 to 80	36 to 48	15 to 20	8 to 10	Early spring	1 to 3 yrs.
Beans, snap	½ to 1 pt.	20 to 24	4 to 6	1	April to August	40 to 65
Beans, pole	½ pt.	36 to 48	Hills 24–36	1	May and June	50 to 80
Beans, Lima, bush	½ to 1 pt.	18 to 24	4 to 6	1	May and June	60 to 90
Beans, Lima, pole	½ pt.	36 to 48	Hills 24 to 36	1	April to June	60 to 80
Beets	2 oz.	12 to 18	5 or 6 to ft.	1 to 2	April to July	60 to 80
Brussels sprouts	¼ oz.	24 to 30	16 to 24	½	April to August	60 to 80
Cabbage, early	¼ oz.	24 to 30	12 to 18	½	March and April (Start in hotbed during Feb.)	90 to 130
Cabbage, late	¼ oz.	24 to 36	16 to 24	½	May and June	90 to 130
Carrot	1 oz.	18 to 24	6 or 7 to ft.	½	April to June	75 to 110
Cauliflower	1 packet	24 to 30	14 to 18	½	April to June (Start in hotbed during February or March)	100 to 130
Celery	¼ oz.	18 to 36	4 to 8	⅛	May and June. (Start in hotbed during Mar. or April)	120 to 150
Chard	½ oz.	18 to 24	4 to 6 to ft.	½	April to July	60 to 80
Corn, sweet	½ pt.	30 to 36	30 to 36	1 to 2	May to July	60 to 100
Cress, upland	½ oz.	12 to 18	4 to 5 to ft.	½ to 1	March to May	30 to 40
Cucumber	½ oz.	48 to 72	48 to 72	1	April to July	60 to 80
Eggplant	⅓ oz.	24 to 36	18 to 24	½ to 1	April and May. (Start in hotbed during Mar.)	100 to 140
Endive	1 oz.	18	8 to 10	½	Midsummer	90 to 180
Horse-radish	70 roots	24 to 30	4 to 6	3 to 4	Early spring	1 to 2 yrs.
Kale	½ oz.	18 to 24	6 to 8	½	Early spring and August and September	90 to 120
Kohlrabi	¼ oz.	18 to 24	4 to 6	½	April to August	60 to 80
Lettuce	½ oz.	12 to 18	4 to 6	½	March to September	60 to 90

Muskmelon	½ oz.	72 to 96	Hills 72	1	April to June. (Start early plants in hotbed during March) 120 to 150.
Okra, or gumbo	2 oz.	36 to 48	24 to 30	1 to 2	May and June 60 to 90.
Onion, seed	1 oz.	12 to 18	5 or 10 to ft.	½ to 1	April and May 130 to 150.
Onion, sets	1 qt.	12 to 18	4 or 5 to ft.	1 to 2	Autumn and March to May 90 to 120.
Parsley	¼ oz.	12 to 18	3 to 6	⅛	Early spring and September 90 to 120.
Parsnip	½ oz.	18 to 24	4 or 6 to ft.	½ to 1	April and May 125 to 160.
Peas	1 to 2 pts.	36 to 48	15 to ft.	3 to 4	March to June 40 to 80.
Pepper	⅛ oz.	18 to 24	15 to 18	½	May and June. (Start early plants in hotbed during March) 100 to 140.
Potato, Irish	5 lbs.	24 to 36	14 to 18	3 to 5	March to June 80 to 140.
Potato, sweet	75 slips	36 to 60	14	2 to 3	March to June 100 to 130.
Pumpkin	½ oz.	96 to 144	96 to 144	1	May 100 to 140.
Radish	1 oz.	12 to 18	8 or 12 to ft.	½	March to September 20 to 40.
Rhubarb, plants	33	36 to 60	36 to 48	*NOTE	Early spring 1 to 3 yrs.
Rutabaga	¼ oz.	18 to 24	6 to 8	½ to 1	May and June 60 to 80.
Salsify	½ oz.	18 to 24	2 to 4	½	Early spring 120 to 180.
Spinach	1 oz.	12 to 18	7 or 8 to ft.	1 to 2	September or very early spring 30 to 60.
Squash, bush	½ oz.	36 to 48	Hills 36 to 48	1	April to June 60 to 80.
Squash, late	½ oz.	84 to 120	Hills 84 to 108	1	April to June 120 to 160.
Tomato, seed	⅓ oz.	36 to 48	30 to 36	½ to 1	May and June. (Start early plants in hotbed during Feb. and Mar.) 100 to 140. 80 to 100.
Tomato, plants	33 to 40	36 to 48	30 to 36		
Turnip	½ oz.	18 to 24	6 or 7 to ft.	¼ to ½	April and August 60 to 80.
Veg. marrow	½ oz.	96 to 144	Hills 96 to 108	1 to 2	April to June 110 to 140.
Watermelon	½ oz.	96 to 120	96 to 120	1	May 100 to 120.

* NOTE.—Set rhubarb plants so that growing tips are at surface of ground.

Absolute dates for planting can not be given, because of variations in seasons from year to year and varying climatic conditions in different sections. For general guidance see "When to Plant."

plant. Rake some dry earth about the surface surrounding each plant to hold the moisture.

Transplanted plants cannot stand strong sunshine at first and cloudy days or late afternoon are preferable for transplanting. In bright weather place newspapers over them for a day or two, making tents of the papers, in the shape of an inverted V.

A home-made paper pot, a round, bottomless paper band, or a berry box, filled with soil, should be used to produce plants for a hill of cucumbers, squash, melons, or other "vining" plants which are started indoors, as these do not stand transplanting if the roots are disturbed. The pot or other holder may be set into the ground without disturbing the roots. Tomatoes, egg-plants, and beans may also be started in this way.

When to Plant

When heavy frosts are over, plant early peas, onion sets and seed, early potatoes, kale, lettuce, and spinach. All of these will stand light freezing except potato plants, which should be covered with dirt when frost threatens.

When frosts are about over, plant radishes, parsnips, carrots, beets, late peas, and early sweet corn, and set out cabbage and cauliflower plants. (An old and useful rule is to "plant corn when the oak leaves are the size of a squirrel's ear.")

When all the frosts are over and apple trees are in bud, plant string beans and late sweet corn, and set out a few early tomato plants from the indoor boxes.

When apple trees have finished blossoming, plant cucumbers, melons, squashes, and lima beans, and set out the rest of the indoor plants.

Seed Beds

Plants for second crops may be raised in an outdoor seed bed occupying small space. These plants may be grown while the space allotted to them in the garden plan is still in use for earlier crops. The rows of seed are not spaced so closely as in boxes used inside the house. If the plants crowd each other too much, some of them may be removed and transplanted to another part of the garden. The seed bed plan is useful for such crops as cauliflower, Brussels sprouts, late cabbage, and the like.

Fall Planting

It is well to plant a fall garden of some crops, for in spite of the risk of injury by early frost the chances are in favor of satisfactory results. There can be no absolute rule as to the time of planting. The probable time of the first frost in each locality must be taken as a general guide. For planting in August, and possibly even in early September, the following vegetables may be grown:

When first frost may be expected between September 15th and September 25th: lettuce, spinach, turnips, parsley, and multiplier onions. (Kale and radishes may be risked.)

When first frost may be expected between September 20th and October 5th: kale, lettuce, parsley, multiplier onions, radishes, spinach, and turnips. Beets and chard for greens.

When first frost may be expected between October 5th and October 15th: beets for canning, carrots, kale, multiplier onions, spinach, chard, endive, lettuce, radishes, and turnips.

When first frost may be expected between October 15th and October 25th: any of the vegetables mentioned in the preceding lists. (String beans may be risked.)

Laying Off Rows

Straight rows add to the garden's beauty and make cultivation easier. To make the rows straight, stretch a stout string between stakes and follow it with the point of a hoe, with a wheel hoe, or with the end of the handle of the rake or hoe, to open up the row. The plan is suggested in the illustration.

Succession of Crops

Nature generously provides for more than one crop on the same soil. Vegetables which reach maturity early in the season should be followed by later crops of the same vegetable or by rotation of other kinds. Onions to be used green may be grown in rows which are to be occupied by late tomato plants, as a few of the onions may be removed to plant the tomatoes. Radishes mature early and as they are harvested the space may be used for cabbage, lettuce, cauliflower, Brussels sprouts, and other plants. Many combinations of this kind may be made to good advantage.

For Continuous Crops

With some of the important vegetables a series of plantings is desirable. Of string beans, lettuce, radishes, spinach, sweet corn, peas, beets, and carrots there should be several successive plantings, two or three weeks apart, to provide a fresh and continuous supply all season.

Depth of Planting

Do not plant too deeply. The old rule is to plant to a depth of five times the thickness of the seed. This, however, is not an absolute rule and is not safe in all cases. Consult planting table on Page 277 for depth.

Hoeing

When the green rows appear, it is time to start hoeing or cultivating. Never hoe or cultivate deeply—an inch or two is deep enough—but stir the ground frequently, and always after rain or watering, as soon as it is dry enough. The hoeing must not be done after rain or watering when the ground is still wet enough to cause the muddy earth to pack like cement, as this causes the earth to cake and dry out altogether too rapidly, which is undesirable.

Frequent hoeing causes the formation of a dust layer which prevents the soil underneath from drying out. The garden should always be kept free from weeds, as these, if permitted to grow, consume plant food and moisture needed by the plants.

Watering

A plentiful supply of moisture is essential. If there is not sufficient rainfall, the moisture should be provided by watering the garden. In doing this it is better to soak the ground once a week than to sprinkle every day. Late afternoon is the best time to sprinkle.

To moisten the surface is not enough. There must be a thorough wetting. If pipe connections are available a garden hose is the best means of watering. One of the most satisfactory methods is to open small furrows between rows and allow water to run into these trenches, raking the earth back into place several hours later, and make a mulch, after the water has thoroughly soaked in. The sprinkling pot will serve if hose is not available, but is more laborious. Overhead sprinklers are very satisfactory. They consist of pipes mounted on supports extending the length of the area to be watered. Holes are drilled at intervals of three to four feet and small nozzles are inserted which yield a spray-like misty rain when the water is turned on. By turning the pipes and also changing the position of them, it is possible to water an area of any size.

In home gardens proper drainage is often disregarded. Drainage improves the soil by allowing air to enter; by raising the temperature of the soil; by rendering the soil more porous and granular; by enabling the roots of plants to grow deeply into the soil, and by allowing earlier cultivation in the spring.

Blind ditches, partly filled with stones or other material covered with soil, or open ditches, will be found satisfactory for the home garden. They should be along the lowest level of the garden, and have suitable outlet. Lacking an outlet, lay tile twelve inches below surface of garden, slanting toward a hole ten feet deep and five feet across, in center of garden. Fill this, two-thirds to the top, with stones, covering stones with clay and covering the clay with loam.

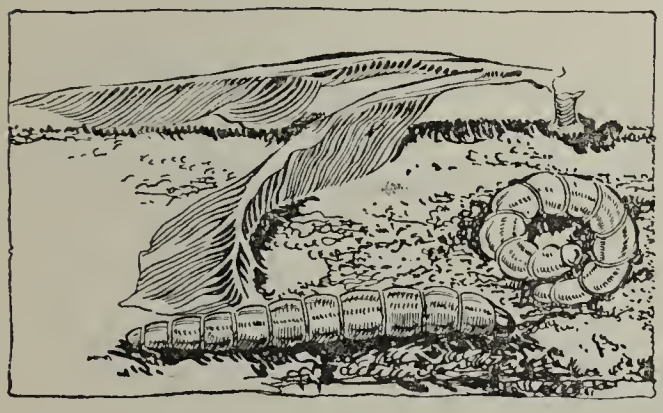
Common Garden Insects and Their Control [2]

ARTHUR GIBSON

Fully twenty per cent of the annual value of all vegetable crops grown in Canada represents the loss from ravages of insects. This loss easily totals several millions of dollars each year. Much of this could be saved by adopting the measures of control here recommended. It is possible in this handbook to refer only to some of the more important garden pests.

CUTWORMS

These smooth, cylindrical caterpillars are about one inch or more in length and in color are of some dull shade similar to the ground in which they hide during the day. The moths that lay the eggs from which the cutworms develop are of a grayish or dull brownish shade, and measure, with the wings spread, from one to two inches in width. The eggs, pale in color, and less than one twenty-fifth of an inch in diameter, are deposited in clusters on leaves of trees, shrubs, weeds, and grasses. Injury by the cutworms is effected mostly in the early part of the season when plants are young. As their popular name indicates, these caterpillars have the habit of cutting off the plants during the night, near the surface of the ground or a little below it.



As soon as their presence is detected the following poisoned bran bait should be used:

Bran	20 pounds
Cheap molasses	1 quart
Paris green or white arsenic . .	½ pound
Water	2 to 2½ gallons

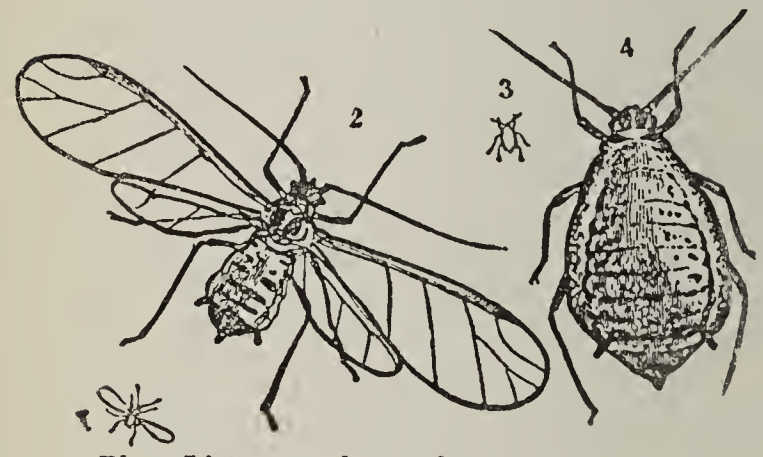
[2] Reprinted by permission from The Canadian Standard Efficiency Training "Manual for Trail Rangers," copyrighted, Canada, 1918, by the Committee on Canadian Standard Efficiency Training.

Mix the bran and Paris green (or white arsenic) thoroughly while dry, in a wash tub. Dissolve the molasses in the water and wet the bran and poison with the same, stirring well so as to dampen the bran thoroughly.

The mixture should be applied *thinly* as soon as cutworms' injury is noticed. It is important, too, that the mixture be scattered after sundown, so that it will be in the very best condition when the cutworms come out to feed at night. For protecting hoed crops, such as beets and turnips, a simple method is to have a sack filled with the bran hung around the neck and by walking between the rows, and using both hands, the mixture may be scattered along the row on either side. In small gardens a small quantity of the poisoned bait may be put around each plant, but should not touch the plants.

Plant Lice

There are few kinds of vegetables or other garden plants which are free from injury by the various species of plant lice, known also as "Aphis" and "Green Fly," some kinds of which are green, others dark colored, and some even red. All are sucking insects and live solely on the juice which they suck from the plants.



Plant Lice. 1 and 2, male; 3 and 4, female; 1 and 3 about life size

Garden plants should be examined for their presence at frequent intervals in early spring. The under side of leaves and the upper portions of stems are the chief places. When these insects are noticed the plants should be sprayed with an insecticide which kills by contact, such as whale-oil soap or nicotine sulphate (forty per cent). Whale-oil soap, which is dissolved in boiling water, should be used in the strength of one pound to six gallons of water for greenish plant lice and in the strength of one pound to four gallons of water for dark plant lice. Nicotine sulphate sold by seedsmen should be used in the strength recommended on the can.

Flea Beetles

The small, dark-colored "flea beetles," so called from their habit of leaping or jumping, are from one-twentieth to one-quarter of an inch in length. They eat holes in the leaves of turnips, radishes, potatoes, tomatoes, cabbages, beans, and other vegetables. They are most injurious in spring, at which time the young seed leaves are often very quickly destroyed.

The Flea Beetle. The small figure's actul size

Infested plants should be sprayed with an arsenical mixture containing either Paris green or powdered arsenate of lead. The former should be used in the strength of four ounces to forty gallons of water, with about half a pound of fresh lime added. Where only a few plants are being treated one teaspoonful, with about the same quantity of lime, to a pail of water, is sufficient. Powdered arsenate of lead is used in the strength of two pounds to forty gallons of water. For use in small gardens one dessert-spoonful is sufficient for one gallon of water.

Root Maggots

In spring, when cabbages and cauliflowers are set out or when radishes and onions appear above the soil, small flies, somewhat resembling the common house-fly, but rather smaller and more slender, may be seen flying about close to the ground, depositing small white eggs on the stems of the plants or adjacent thereto. These eggs hatch in a few days and the small white maggot, known as a root maggot, at once burrows and destroys the roots.

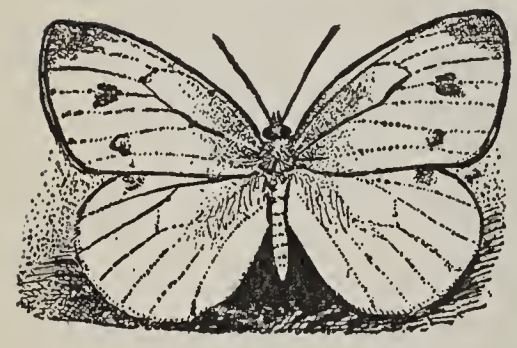
Cabbages and cauliflowers may be protected from injury by placing a disc made of one-ply tarred felt-paper around the stems at the time the plants are set out. Square discs for this purpose are easily cut out with a sharp knife. They should be two and a half inches square with a slit running from one side to about one-quarter of an inch beyond the center and a cross cut made at the center, extending one-quarter of an inch on either side. In placing the disc one side is raised sufficiently to allow the

parts of the star in the center of the disc to point upwards and thus fit close to the stem. The whole disc is then pressed down firmly so that it will rest evenly on the ground.

In small gardens, radishes and onions may be largely protected by watering them, once a week until they are ready for the table, with a decoction of fresh pyrethrum insect powder or wild hellebore, two ounces to each gallon of water. The first application should be made when the plants appear above the ground.

The Cabbage Butterfly

The green caterpillar of the white butterfly, generally called the cabbage worm, destroys large numbers of cabbages every year. The butterflies are common in gardens, where they may be seen depositing their eggs on the leaves of cabbages, cauliflowers, and turnips. Dusting the infested plants with fresh pyrethrum insect powder and cheap flour (air-slaked lime or other dry diluent), one part of the former in four of the latter, is a useful remedy. The powder and flour, after thoroughly mixing, should be kept in a tight vessel for twenty-four hours before using. The mixture may be applied with a duster sold by seedmen, or from a cheesecloth bag on the end of a short stick, the operator holding the bag over the plants and tapping the stick with a cane held in the other hand as he walks along the rows.



The Colorado Potato Beetle

Towards the end of May and early in June the female potato beetles lay clusters of bright, orange-colored eggs on the under sides of the leaves, which soon hatch into the well-known dark-colored grubs. There are several generations during the season. We have found the following poisoned spray an excellent one to control this insect: eight ounces of Paris green and one

and one-half pounds of powdered arsenate of lead to forty gallons of water. Both Paris green and arsenate of lead may be used in the well-known Bordeaux mixture and if this is done the above proportions are suitable for forty gallons of the mixture. Such a poisoned Bordeaux mixture not only destroys the beetles and grubs but also protects the plants from blight and rot. Applications should be made in the beginning of June, when the beetles are first seen, then early in June and about August 1st, 15th, and 31st.

The Potato Beetle and its work: grubs and adults

CHAPTER XV

PETS[1]

Dogs, Pigeons, Chickens, Rabbits

Dogs

Every boy loves a good dog, but not every boy knows a good dog from a poor one. There are dogs and dogs, from the five-pound toy terrier to the gigantic two-hundred-pound St. Bernard.

Darwin says that all of the domestic dogs of the world descended from two well-defined species of wolf. Our northern Indians and White Trail Rangers through the Canadian woods who use dog trains know that their dogs will breed freely with the wolves. It has taken many years of breeding to develop the intelligent animals that we now possess. A breed of dog something like the greyhound is figured on the Egyptian monuments of 3400 B. C. and long before the historical period of Europe there is evidence that man possessed the dog.

There can be no doubt that the existing varieties of the dog have been produced by crossing and selection, chiefly aided by the influence of all that enters into the term "*environment.*"

Every breed of dog now has a "standard," which is a description of the characteristics of that breed. There are many books about dogs, which may be obtained from any progressive book-dealer. The boy who wants to exhibit his dog must know the judging points. These are based on an imaginary perfect dog of that particular breed. In selecting a dog it is well to remember

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that a mongrel costs as much to keep as a thoroughbred, and while the former may be as intelligent as any blue-blood, there is always more satisfaction in the possession of a handsome, well-bred animal.

English Setter

The individual taste of each boy should decide his selection of a dog, but, generally speaking, the city and town boy will do well to select one of the smaller or medium-sized breeds with short hair. They are less troublesome around the house and neighborhood. If a thoroughbred dog is purchased, care should be taken to get the pedigree.

The housing of a dog is most important. If a dog is to look well and show off to the best advantage, he must have a comfortable home. It must be well ventilated, clean, and have a southern exposure that will allow the health-giving sunshine to do its work. Coarse straw forms the best bedding. Never use hay or fine grass. The kennel should be cleaned each morning.

Scottish Terrier

Puppies may be taken from their mother at the age of five to seven weeks. They should then be given milk five or six times a day. Soon a little bread or puppy biscuit may be soaked in the milk. At six months scraps from the table may be given with an occasional ration of meat. The uneaten food should always be removed as soon as the dog has finished. Three meals a day are now sufficient and this can later be tapered off to one good meal each evening, with a small "hand-out" at breakfast time. A dog should be taught house manners soon after he is four months old. A little patience, tempered with firmness, will be necessary.

Two extreme views have long been entertained in regard to the training of a dog: the one that he is a wild, wayward creature to be "broken"; the other that he needs no special correction if properly taught at first. Neither is quite correct.

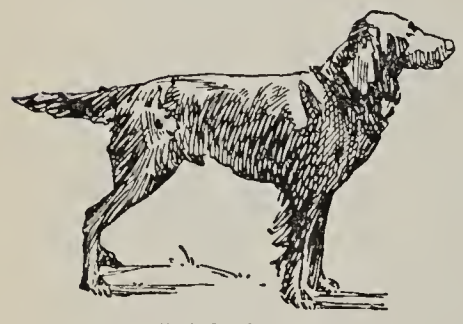
Greyhound

Collie

A puppy, like a boy full of life, tends to do exactly as his impulses urge him till the highest mature power, a desire to please his master, is substituted. It follows that a puppy cannot be too soon led to understand that he has a master, kind, honest, intelligent, and firm.

By observing the following principles, almost any puppy may be taught to perform several entertaining tricks such as to roll over, sit up and beg, jump through a hoop or over a stick, retrieve a ball or stick, and walk on his hind legs.

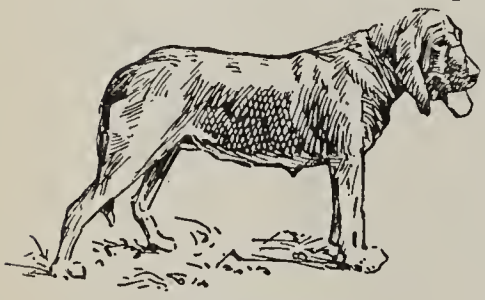
The boy who is successful in training his dog will in all probability be just as successful in bringing up his own boys when he becomes a man, because the puppy must be treated very much as one should treat a boy.



Irish Setter

It is a well-known law of the nervous system that what has happened once is likely to occur again under the same circumstances; hence, in the training of the puppy, first experiences are of great importance and they should not be allowed to form habits which will later need correction. Let him from the first be encouraged in cleanliness, self-respect, love of esteem, respect for the rights of other puppies, and obedience to his master.

Very early begin to instill into him lessons of restraint, but only for the briefest periods, for he is yet weak in brain and will power, though strong in instincts and impulses. The master or trainer must not be associated in his mind with unpleasantness. Do not, therefore, punish him, but let him learn almost unconsciously that certain actions bring certain pleasures. It is well to carry a bit of biscuit, cheese, or a very small particle of meat to reward him for first performances. Later a loving pat will suffice.



Bloodhound

The trainer should never undertake what he is not reasonably sure of accomplishing, and the first aim should always be to get

the dog's attention and interest. If it is evident that he understands, he must be made to obey; gentle compulsion when once the purpose is understood may be exercised, but he must not be whipped, as that will make the whole set of associations unpleasant. Gently drag him by the neck or carry through the performance, and then reward him at its completion, as if he had done it voluntarily. He must be made to feel that obedience to what is right brings pleasure and that disobedience produces a sense of unpleasantness.

Fox Terrier

It must be remembered that all lessons require frequent repetition; "little and often" is one of the first principles in training. With puppies, as with boys, example is strong for both good and evil. A steady, old, well-trained dog is invaluable, while a disobedient, headstrong one will most assuredly ruin a good puppy.

If a boy intends to enter his dog in the show he should know that many prize winners have been beaten, not because they did not have the points, but because of poor show condition. This means perfect health—the result of good housing, good food, plenty of exercise, fresh air, and cleanliness.

The grooming of show dogs should be regular. Ten minutes should be devoted to this every day, first with a dandy-brush, then with a rough towel. Long-haired dogs should be combed frequently and given an occasional application of some hair tonic.

Washing should not take place more often than once a week, and at least two days should be left between the last wash and the show to enable the hair to recover its luster. Care should be taken to dry thoroughly all long-haired dogs before putting them in the kennel. It is not sufficient for a dog new to the show ring simply to be in good condition. He must go through a suitable course of training, otherwise he will refuse to show himself off properly in the ring and entirely fail to exhibit his good points.

He must be practiced, preferably in the presence of other dogs, in all the routine of the ring. Teach him to lead and to stand still when required, and to start out well, covering a lot of ground like a well-trained hackney. Some owners fit up miniature show rings and benches and thus accustom their dogs to the ordeal.

Trumpeter

Pigeons

There is nothing dearer to the heart of a boy than the ownership of a dog, rabbits, guinea pigs, or pigeons. Giving care and attention to such pets brings its own reward. When a boy loves his pets he does not need to be told to be kind to them. He will tenderly care for these beautiful creations of God and bestow on them the attention that their helpfulness calls for.

In raising any kind of pets one of the chief joys is in exhibiting them at a show. It is there that one meets others interested in the same hobby and the exchange of ideas as well as exchange of stock is a source of intense delight.

In the raising of pigeons a boy may choose three objectives—raising them for show purposes, for racing, or for the market as squabs. Those who want to breed show birds have many varieties to choose from and the decision with each boy should rest on his own individual taste. If one goes into the racing game he is limited to the homers, of which there are several types. This is a most fascinating pastime, provided that several boys in a community are engaged in it. Fattening pigeons for table use may prove more profitable, but the average boy revolts against the thought of slaughtering the pretty little creatures which have given him such happiness.

Carrier

Any boy with a taste for carpentering and a slight knowledge of tools can erect a pigeon loft. Very often available space will be found in the upper part of a woodshed, chicken-house, the barn, or stable, in which case an opening in the south side of the building with a trap door and a landing shelf will be all the outside construction necessary. Inside, the partition should allow for a

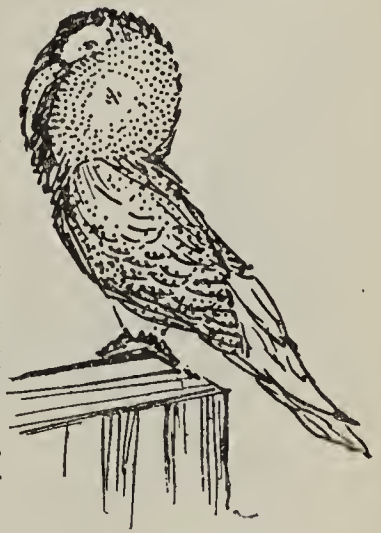
space about five by ten feet and four to six feet high. This will accommodate from six to eight pairs of birds. The back should be boarded in, one end covered with fine wire netting, and a door made in the other end. This will provide plenty of ventilation and allow free access for cleaning.

Pouter

Perches should be put up along the back of the loft. The best kinds of perches are shaped like the letter-boxes in a country store, each box perch allowing room for one bird only. These should be made of boards four inches wide. The height and width will depend on the size of the breed of pigeons. Place the perches in the upper part of the loft, leaving plenty of space for the nesting shelves underneath. These should be arranged in two or three rows, extending the full length of the back of the loft. Make them one foot wide, three feet long, and eighteen inches apart. Two doors, each one foot wide, should be placed at each end of every nest, thus leaving a space for one foot in the center. The birds will lay alternately at either end of the nest behind the doors, which can be opened for cleaning. If an earthenware nest pan with some pure sawdust is provided it will be possible to keep the nests much cleaner than if the birds are allowed to build on the shelves.

Three pairing-up pens one foot deep, two feet long, and two feet high should also be built. They may be placed under the nest shelves.

If the loft cannot be built in some building, a suitable place may be erected in any backyard, following the same instructions with the exception of the height, which should be at least six feet, and instead of leaving one end covered with wire netting, a hinged window three feet square should be placed there. This space should be covered with the netting, so that when the window is hinged back for ventilating purposes the birds cannot escape.



Jacobin

If the start is made with young birds, all that is necessary is to keep them shut up for a couple of weeks.

Magpie

The birds it is decided to pair together should be placed in the pairing pens. When it is seen that they have mated they may be allowed to take possession of one of the nest-boxes. Two eggs are laid, which take from seventeen to nineteen days to hatch. The hen bird covers the eggs most of the time, but each morning the rooster takes his turn while his mate gets some food and exercise. The young are fed by the old birds with a secretion that comes from the crop.

Barley is considered the best grain for pigeons, although any ordinary chicken feed is quite suitable.

The war brought the homing or roving pigeon before the attention of the general public. However, for many years long distance pigeon-flying has been an outstanding hobby throughout Europe, especially in Belgium.

Fantail

In selecting racing birds the color is of no importance, but wings should be strong, broad, and long, the chest deep, giving good lung power, and the skull broad, showing a well-developed brain. Another point that should be noted is the prominence and brightness of the eyes.

In order to improve the strain, the fastest rooster in the loft should be mated with the fastest hen. In this way birds are bred that will beat the performances of their parents.

Short-faced Tumbler

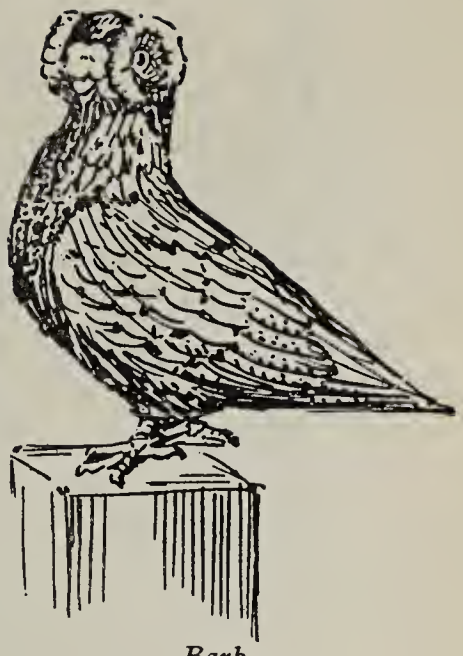
In training young birds for racing, start them first about a mile from home; a few days later double the distance, taking them in the same direction. By doubling the distance each time it will not be long before the birds are flying from fifty to seventy-five miles. This is far enough for any bird under one year, but two-year-olds may be sent three hundred miles. Birds intended for longer flights must be older and more experienced.

Among the show pigeons, *the Fantail* is the best

known. The chief points in judging are the tail and back, which give the bird a proud air.

The Pouter: The carriage, the legs, and the crop are important matters in these birds. The best pouters stand upright so that the eye is in a vertical line with the lower legs, which must be covered with feathers to the feet. The size and roundness of the crop are given no little consideration by the judge.

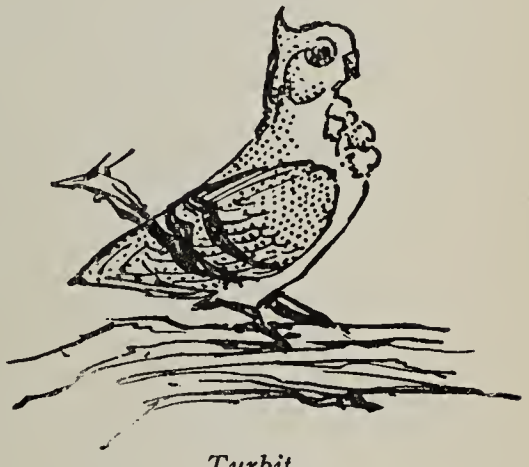
The Jacobin: The ruff or hood of this well-dressed little bird is the chief point of attention for the fancier, although the general carriage is also important.



Barb

The Magpie: The colors and markings of these birds count for much, although they come in black, duns, silvers, reds, yellows, and blues. They are very beautiful. The carriage is graceful, the head long and thin and round on top. The eyes are white, with an intensely black pupil.

The Barb: This is a difficult pigeon to breed. The eye wattle forms the side of the head. The beak wattle is not supposed to be large. The legs are short, giving the bird a stubby appearance.



Turbit

The Tumbler: There are many varieties of this pigeon, which may be classified under the long-faced and short-faced types. The most popular are the Beard, the Mottled, and the Almond.

The Turbit: This small, erect bird is white, with the exception of its wings which may be black, yellow, blue, or red. The peak on the head springs from the mane and extends slightly beyond the top of the skull. The larger the gullet and frill the better.

Dragon

English Owl

The Antwerp: There are three varieties—the short, medium, and long-faced. The colors vary and the head is the judging feature of this breed, which must be large and well rounded, the beak short and stubby. The chest must be broad and the entire bird large and well developed.

The Dragon: This is a very active, hardy bird with a head that receives most attention in the show pen. The beak is thick and the wattles broad at the base, narrowing towards the point of the beak. The neck is short and thick. The colors include blue, red, yellow, grizzles, silvers, and checked.

The Owl: This pigeon is small, with a well-rounded head. The beak should be broad and short. The legs are short and the bird should exhibit his frill with a suggestion of pride. The colors vary.

Homer

The Homer: The Show Homer is a smart-looking, active pigeon that is hardy enough for any boy to experiment with. There are several colors and the head is the most important of the judging points. It must be round from the back to the top of the beak and the beak must follow on with a curve, so as to give the appearance of a circle from the points of the beak to the back of the head.

Keeping a Pen of Poultry

It is doubtful whether there is any line of work in which a boy may engage which will afford greater opportunities of becoming acquainted with nature and develop keener powers of observation than looking after a flock of chickens. It provides a good chance to do something worth while in helping to increase the national food supply; it gives a splendid introduction to a business training in a small way, and it furnishes enough eggs for breakfast almost the year round.

Monarch of the Roost

A liking for chickens, a natural adaptability for looking after them, and willingness to work, form the foundation for successful poultry-keeping. Success depends entirely on the faithful performance of all the required details. Chickens respond quickly to good treatment. They will also show the effects of neglect more quickly than any other kind of stock. The things that need doing can only be seen if the boy is fully alive to what is going on around him, and it is noticing and caring for the little things that will bring success.

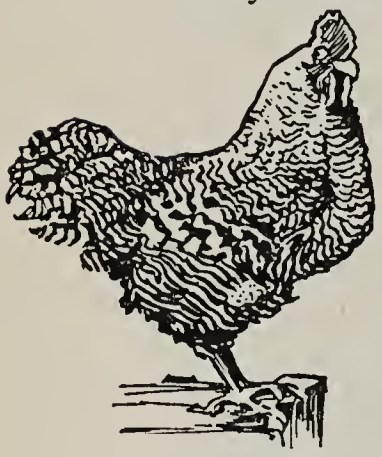
Chickens respond more quickly to good treatment than any other class of stock. A boy will find a flock of hens one of the most interesting lines of study. Each bird has an individuality of its own, the same as a human being. There are no two birds alike. Chickens are more or less sociable in nature and appreciate frequent visits to their house. A good poultryman gets to know each one of his birds, and they get to know him. The fancier studies the habits or traits of character in each of his birds, and then proceeds to fit and train each one so that it will show to best advantage in the show room. A few minutes spent in the poultry-house each day will do wonders in the way of helping one to know the nature and habits of the birds.

Rhode Island Red Hen

With many a boy the question of earning a little extra money is an important thing. Poultry-keeping will lend itself to this. Quite a good-sized bank account can be earned in a few years by keeping poultry. The returns in eggs depend almost entirely on the work done with the flock and how they are fed and housed. Under proper conditions any flock can be made to pay well for the feed, time, and labor expended.

By way of developing keener powers of observation we might point out that there are no less than fifty recognized pure-bred breeds of poultry, and within these breeds over two hundred varieties and sub-varieties. This classification is made on type or shape, color, feather markings, type of comb, color of ear-

lobes, color of legs and feet, and color of eggs laid. A breed is generally known by its type or shape, and the general characteristics such as comb, ear-lobes, and color of legs and feet. A variety within a breed is generally known by its color. In almost all breeds there is a white variety, a buff, and a black. A boy can get a fine opportunity to develop keen powers of observation by studying breeds and varieties. This in turn should be followed by a study of the uses of the different breeds. Some are specially adapted for egg production, others for meat production. We have breeds which will lay well and also dress out a good-sized carcass for table use. These are known as general-purpose or utility breeds.



Plymouth Rock Rooster

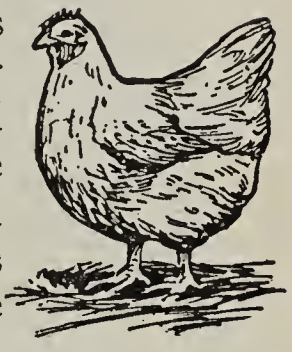
Coming to the practical side of poultry-keeping, there are a few factors which must be considered essential. The house, the stock, the feed, and the care, are the four most important.

A good poultry-house must be well lighted, have plenty of fresh air, be well ventilated, free from draughts, and dry. In addition, it should not be too costly, and yet should be in keeping with the surroundings. It is not necessary to build it so that water will not freeze. Fresh air, even if it is cold, will not hurt hens, provided it is dry air and does not blow over the birds. Sunlight is important, as it is the best disinfectant. Plenty of bright sunlight will help to keep the house dry, sweet, and clean. A combination of the points mentioned will go a long way in keeping hens strong, vigorous, and healthy. Light or sandy soil is best suited for a poultry run. Where the soil is heavy it should be well drained and will require to be spaded during the summer months. Spading the soil in any poultry yard will help to keep it sweet and clean. Adding air-slaked lime while spading makes this process still more effective.

The main object is to get eggs—the largest number at minimum cost. Not all hens are good layers. There is no best breed for egg production. The majority of breeds will, however, give a fair egg yield, if looked after properly. There is more in strain or in family than in breed, when it comes to heavy laying. Care-

ful selection of the best layers each year will enable one to build up a heavy laying strain in almost any breed.

For general-purpose breeds the Plymouth Rocks, Wyandottes, Rhode Island Reds, and Orpingtons are best. The following varieties are the most popular—Barred Plymouth Rocks, White Wyandottes, Single Comb Reds, and Buff Orpingtons. Others, while probably almost as good, have as yet not been able to gain the same popularity. A choice might be made on color only, or on breed characteristics. They all dress out good table birds and, as far as laying goes, a heavy laying strain may be developed in any of them.



Buff Orpington Hen

For eggs alone the Single Comb White Leghorn seems to be the favorite. They are especially well adapted for backyard conditions, as they will thrive in restricted enclosures which are not suitable for some of the heavier breeds. The selection of a breed must depend a good deal on likes and dislikes and what the object is in keeping a flock. From a fancier's standpoint the choice might fall outside of these breeds entirely.

In feeding a flock it is necessary to give four things: (a) hard grain, (b) green food, (c) animal or meat food, and (d) mineral food.

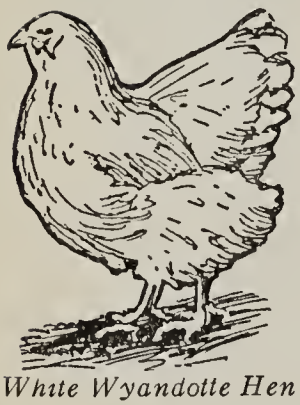
For hard-grain feed wheat and cracked corn are best. They should be mixed in equal quantities for winter, and two of wheat to one of corn for summer feeding. Barley and oats, although coarser grain, may be used to good advantage. Where the feed has to be bought there is but little advantage in using these, as they are in many cases higher in price than feed wheat and corn. Hard grain should be fed in straw where the hens have to scratch for it. Exercise is necessary to keep birds healthy. Feed at the rate of one good handful to two hens twice a day. Oats are best fed in the crushed or rolled form, with the hull still adhering to the kernel. Feed them as a dry mash in a hopper where the hens can eat all they want at any time, but make them scratch and hunt for the hard grain. Add about one per cent of charcoal to the crushed oats. This acts in the digestive

White Leghorn Hen

system as an absorbent of bad gases. Feeding barley boiled will make it more palatable.

Green food can easily be secured in the summer in the form of lawn clippings, sod, sprouted oats, and so on. For winter use scalded lawn clippings mixed with a bran mash make a very good food. Feed this mash once a day. Cabbage, mangels, or turnips (uncooked) are also very good. Oats can be sprouted near the furnace or stove and fed as a green feed in winter. The yard or run can be seeded down with oats early in spring if sufficient space is available. Rape sown in the yard will also make a good green food.

Meat or animal food is best fed in the form of buttermilk or skim milk, but under ordinary circumstances these are not available. Table scraps may take the place of milk, and can be mixed in with the bran mash. Beef scrap or cut green bone are the two common forms of meat fed by backyard poultry-keepers. Some meat food is necessary to balance the feed and to make hens lay.



White Wyandotte Hen

The ordinary grains may contain all the lime and other mineral food required while the hens are not laying, but when they are in full laying they must have some extra mineral matter to make egg shells. Oyster shells furnish the lime required and grit furnishes the grinding material to enable the fowls to masticate their food. Variety is another important consideration. A little bit of everything will bring good results. Frequent changes from one food to another will have the desired effect also.

The object of feeding hens should be to use as much of the otherwise waste materials as possible and conserve all food fit for human consumption. Poultry-feeding should have for its object the increasing of the national food supply.

With proper care there will be but little trouble with disease, vermin, and so on. The general health of the flock can be maintained by doing the little things at the right time. Clean houses, clean food, clean water, clean drinking pans and food troughs are essential. Provide a good dust bath for the hens to dust in on sunny days. Dust the hens with louse powder if the dust bath is not sufficient to keep them free from lice. For red mites on the

roost use equal parts of coal-oil and creosote, or some other liquid disinfectant. Apply once a month, being careful to paint or spray well the lower side, ends, and cracks around the perches.

A fowl is a high-geared machine, and will perform an enormous task if properly looked after. Good treatment is responded to readily and the returns come quickly. From these facts we gather that the saying, "What is worth doing at all is worth doing well" will hold good in poultry-keeping. If fowl are not properly cared for and anything goes wrong, the injury done is more disastrous and harder to repair than with any other line of stock.

Little chickens grow faster than any other class of farm stock. A chick weighs about an ounce and a half when hatched and with proper care and good food will weigh twenty-seven ounces at eight weeks of age. This is increasing its original weight eighteen times in eight weeks. A three-and-a-half-pound Leghorn hen laying 200 eggs in a year will produce eggs weighing seven times her own weight. To get these results in either chicks or laying hens, good care and good food must be given and the other requirements mentioned above must be met.

The hints on poultry-keeping here given are intended to show what an interesting and profitable occupation it may prove to be. If the reader is interested let him start at once with a few good hens. If he makes a success with these, he may gradually improve his equipment and increase his stock.

Rabbits and Their Care

It is only within the last sixty years that pet fanciers have cultivated the rabbit as a hobby. In 1859 at Gravesend, England, the first show was held. Since that time hundreds of exhibitions have developed many species and thousands of persons have found a delightful hobby in keeping these pets.

Black and White Lop

There are two main reasons for boys undertaking to keep and develop rabbits. One object is the pleasure they will get from seeing them grow and multiply and improve in quality, with the added delight of capturing prizes which indicate that they have

been able to grow a rabbit nearer to the recognized standards of excellence than those of their competitors. The other object of the hobby for most rabbit-keepers is the profit to be obtained for the sale of well-bred stock. With small capital boys may start and not only pay their way, but earn fair sums each year, through their industry and intelligent care of the rabbits. Not least important in these days of greater food production is the fact that many are cultivating certain varieties of rabbits to be used for food.

Flemish Giant

The careful, energetic boy, before investing the small amount of capital required, should secure the advice of some reliable fancier. He will be prepared to select healthy specimens with which a lad may start. It is very unwise to buy from advertisements that look attractive or from persons whose judgment is not dependable regarding this stock.

One must have a place to keep his pets. The rabbitry will need to be well built, airy, and bright, both inside and out. The owner will take far more enjoyment out of it if he can plan and build it every bit himself. Visit other rabbitries. Read descriptions of approved buildings in available books. Plan something you will be proud of. Next the "hutches" must be provided. The majority of rabbit fanciers seem to consider the single hutch the best, though in some cases three or four may be built together. They must be placed in the rabbitry in such a way that they may be easily cleaned and that plenty of air will get to them. The door must be of small mesh wire fastening securely and opening easily. For mother rabbits there must be the day room and retiring room. Provision must be made for the feed pans and hay racks. In the rabbitry there should be a grooming table, chairs, bins for food and sawdust, and a small chest or cupboard for brushes and record books. A most important feature will be for the successful keeper to have an accurate register of each rabbit and a strict account of his cash.

Belgian Hare

Proper feeding is a most important matter. A boy should study his animals and watch them closely to know whether they are getting proper food or not. Of course he will never fail to feed regularly and just enough natural food—not artificial—is required. Small white oats; clover, hay; crusts of rye bread; green food like dandelions, clover, lawn grass; vegetables, especially green cauliflower, leaves, and carrot tops; milk occasionally—are all recommended articles of diet. Occasional change of diet is desirable. An old saying, "Spare the hay and spoil the hare" holds.

There are certain fundamental rules which, if regarded, make for success:

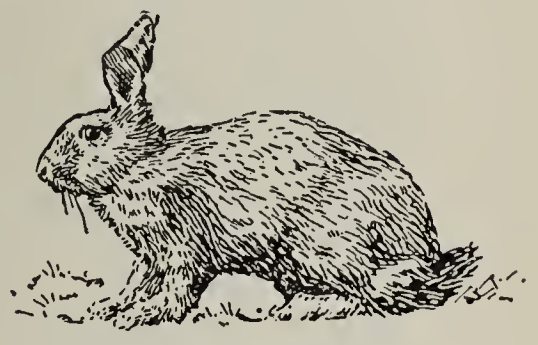
Dutch Marked Cavy

Rabbits should have plenty of air but be kept free from draughts. They should be kept in a temperature as nearly uniform as possible.

They should not be kept where they will be annoyed by dogs, cats, rats, or other animals. If they are in a quiet place removed from noises they will thrive better

The rabbitry and hutches must be kept clean. They should be disinfected regularly and should be washed with lime once in a while.

Invalids should be isolated at once. If one rabbit gets a cold or any other ailment it should be removed at once, so as not to infect the others.



Silver Grey

Rough handling will deter progress very decidedly. Therefore it should be a rule of the rabbitry that no one is to be rude or rough with the pets.

The more care and regular attention given to the rabbits, the more certain will be the results. They have their peculiarities, the study of which is most interesting and contributes to success.

The careful study of the problem of breeding is most important. They should not be paired before they have matured, beginning at not earlier than eight or nine months and most authorities say when one year old. They should never be mated

when in a moulty condition or when there are any signs of ill-health. March is said to be the best time for breeding, while all agree that November, December, and January are months in which strong young are not usually produced. After three years the offspring degenerates and therefore older stock should not be allowed to breed.

English

During the thirty or thirty-one days when the doe is in kindle she should have special attention from her considerate keeper, with a good bed and good food. The little ones should not be touched at all for the first twenty-four hours and very little until they are ten days old and have their eyes open. The hutch in which they are kept should be built so they will not fall out. When they begin to forage for themselves, about the fourteenth day, their food should be supplied intelligently.

Black and White Dutch

The standards of excellence vary with different varieties and each well-known kind has certain "fine points" which the fancier will look for. The boy who wants to make his hobby distinctive will study his variety and develop the points that are recognized. These are some of the things an expert considers in judging a rabbit: color, shape, size, general condition, ears, eyes, legs, feet, ticking and markings, defects if any.

Space will not permit any detailed description of the well-known varieties of rabbits. We must be satisfied with the mention of a few with a fragmentary comment or two, and refer the reader to such a well-known book as "Practical Rabbit-Keeping" by George A. Townsend.

The Dutch rabbit is undoubtedly one of the hardiest, strongest, and most popular varieties. It originated in Holland where it was bred for table purposes. It is found in five standard colors —black, blue, tortoise, steel, and dark gray, with occasionally blue-gray fawns and yellow.

The Lop-ears or Laps are among the oldest varieties. Fifty years ago twenty inches was considered a long ear for this breed,

distinguished largely by this point. Now they frequently are found with twenty-eight-inch ears. They are found in two classes—"Selfs" and "Broken Colors."

To the Belgian more attention is given by breeders than to any other variety. It resembles the wild hare and is marked by its bold clear eye and its color of rich golden tan.

The Silver rabbits come in three classes—grey, fawn, and brown. They are very handsome, bright, and lively. They need the care of specialists and should not be chosen until one has some experience with keeping and caring for rabbits.

The Angora is the most beautiful and dainty of all varieties. What a joy to an average boy it would be to be able to produce these and to keep them always as pretty as they should be.

Himalayan

The English rabbit, one of the most recently developed species, is noted for its striking and beautiful markings.

The Himalayan variety gets its name from the fact that it is fawn color, though black and several other varieties of the species have been shown.

Illustrations of some of these leading varieties are shown and it will be most interesting to rabbit-lovers to follow up the suggestions given here, supplementing them with fuller information obtainable in manuals given over exclusively to the rabbit and its care.

CHAPTER XVI

IN PARTNERSHIP WITH YOURSELF—THRIFT

C. C. Robinson

On the very day that this message was being prepared for the Comrades the newspapers from one end of our land to the other came out with this sort of heading, "The Nickel's Discoverer." These articles announced the ending of a remarkable business career, typically American, as wonderful as an Arabian Nights' tale, the story of Frank W. Woolworth, whose death had occurred the previous day. He was founder of the amazingly successful five and ten-cent stores, and builder of the Woolworth Building in New York, said to be the tallest in the whole world.

The significance of Mr. Woolworth's career in our consideration of thrift lies in two facts: *first*, one of the biggest businesses of a country famous for big business, all built on the lowly nickel and the dime; and *second*, this famous merchant's humble beginning and early struggles.

He held four different jobs before he made good and had his wages reduced twice because his "services were unsatisfactory," but while working for $8.50 per week, with others dependent on him, he saved $50 as his first capital and during these difficult days worked out the idea that made him famous.

The *New York Tribune* says:

He lived to see his company operate 1,068 stores in the United States and to erect and give his name to the loftiest habitable edifice ever erected. The beautiful structure, towering 751 feet, is the familiar first sign and symbol of the imperial city and its material wonders. And all this in a short life from nickels and ten-cent pieces—the Ford of the merchandising world, the flivver of trade! The great fortune came from the savings of superior organization and a multitude of transactions.

The pessimists steadily croak that the old America is no more—that opportunity's door is shut. But when a leader of the business world dies and his biography is read, there is commonly a repetition of the old, old story.

Thrift is not the hoarding of money, not merely the saving of money. It consists in careful use of time and energy as well as money; but because money represents stored energy, care in money matters is usually a key to the development of thrift in all phases of a boy's life. It does not mean niggardliness nor stinginess; it means giving up certain present pleasures for the sake of greater future satisfactions.

Thrift means power in a boy, a man, or a nation. Learned men call it economic freedom, or economic initiative. If a boy quickly spends every dollar he secures, he cannot have a surplus for the extraordinary purchase or trip or gift. A nation must have a surplus over momentary needs. When the World War came on with its unthinkable demand for ships and guns, food and equipment, the Government began to call immediately for the people's surplus and then we were all bidden to pile up more surplus by greater care in the use of food and money and more generous service than most people had ever rendered to any cause.

Suppose anyone had said in the year 1908: "Ten years from today boys and girls in America will care so much for their country and a great cause that they will contribute more than $1,000,000 of money they have actually earned to help that cause along." You or I would have said: "Impossible."

The great campaigns for Liberty Loans, the Red Cross, the Y. M. C. A., and the other war relief agencies, the extra taxes collected, the ban put on luxuries—all these revealed the power of men and women and even boys and girls in America to save. Not impossible at all, for more than $2,000,000 were contributed by boys and girls in the United War Fund drive in November, 1918.

Money or soldiers or food in reserve mean power, and both the "Earn and Give" campaigns and the War Savings Stamps have demonstrated the thrift power of American boys.

The World War was by some thought impossible because the nations could not stand the money strain. But, nevertheless, one of the marvelous things about the War was the way the countries, Canada for example, stood the strain and in addition saved and "banked" money. The government figures showed that the people of Canada, month after month, added ten million dollars or so to their total savings in the banks—a wonderful result of thrift!

We know how important are an army's reserves. How carefully the Allies' reserves were husbanded for use at later and more critical times! Banks, insurance, and trust and other companies show their strength or weakness in much the same way—by the size of their reserves; that is, by the money and property they have saved and stored up ready for emergencies. Sometimes one of them fails—perhaps because not enough thought was given, in time, to putting aside a reserve for the future.

An experienced man has said that financial independence is merely a matter of "living within one's income," no matter, really, how large or how small that income may be at the start. The really vital matter, though, is that the individual boy or man in families above the poverty line should always spend less than he earns. In fact only by this act of saving is our present civilization maintained.

There was not much saving when the race was in its nomad days. When food was needed, an animal was shot or wild fruit or nuts were plucked. Did you ever stop to think how far away we are from that stage? Every building in our cities, every farmhouse or barn, every railroad train, every ship on the ocean, is there because *somebody saved money*, or was thrifty with his labor at a time when he might have spent it for immediate pleasure. All the great businesses of the United States—the great railroads, banks, and loan companies that lend money to farmers and others, the great universities and schools, the museums, the flourishing cities and towns, are in existence because *our forefathers saved when they might have spent.*

Henry Ford says: "Thrift is one of the cornerstones on which manhood is constructed," and when it comes to constructing things the famous auto manufacturer speaks with authority.

What then should the COMRADE, striving to be a typical American boy, really do to be a patriotic, thrifty, Christian boy?

1. He will use conscientiously and conserve carefully what is given him by parents or others, clothing, food, shelter, and money allowance.

2. He will earn money and form the habit of saving a portion of it.

3. He will be careful to use well, and help keep in good condition, goods and property used in common with others, such as

parks, playgrounds, athletic material, library books, school equipment, tools, and machinery.

4. He will give, according to his own income, to educational, religious, and social betterment enterprises of various kinds.

If a COMRADE does this, he will in all reason avoid being in that surprising proportion of men who by sixty-five years of age are dependent on others. Statistics show that ninety per cent of men at their death leave less than $1000 to their families. On the other hand, careful habits of saving even a little at a time, if maintained for years, give a boy either in bank account, insurance, or conservative investments most gratifying returns. Money deposited at four per cent interest doubles in eighteen years.

A boy of fifteen can take his savings to a bank and get three to four per cent a year added. He can take them to some trust company and get four per cent a year, with the result that if he saves and deposits a dollar a week he will have in that trust company at the end of twenty years, $1,586. Or a boy of fifteen years of age can take his money and buy an insurance policy that will bring him in some $1,500 twenty years later and will give his mother over $1,100 if he dies before that time.

To sum it all up, thrift is living within one's income, saving a little every week, whether it be from an allowance or one's earnings. The results of this prudent spirit are incalculable in a boy's character and in his business or profession later. He can help his home. He can help his church. He can get ready to establish a home of his own. He can help his nation by having some money saved up for use in national emergencies. Many of the best men in America will tell you, too, that the thrift habit pays immensely in the pleasure it gives one to have money to give to the great causes that need help.

The COMRADE who will earn and save with a view to his own financial independence later, with a view to helping his home, his church, and his country, and helping world-wide brotherhood through giving to missions, will find a joy in life that he could not possibly get by spending all his money at the time and failing to develop the prudent or the "help the other fellow" spirit.

CHAPTER XVII

SILENT COMRADES

"Reading is to the mind what exercise is to the body." Colton says that "next to acquiring good friends, the best acquisition is that of good books." The books we read are in a very real sense our silent comrades, and who will deny that they have a very profound influence upon our lives for good or bad? What boy hasn't been spurred on to better efforts in athletics by reading of the accomplishments of some very real boy in a very real book who had the same sort of ambitions? What boy has not felt the call to be a great soldier or sailor or explorer or aviator or merchant prince or inventor by reading in some book of the accomplishments of such a man? What boy cannot trace his ideals of honesty and fair play and courage to some one or many books? What boy hasn't been influenced tremendously in what he decides to do with his life by the books that he has read? There can be no doubting it—the books we read are our silent comrades, working quietly with us, constantly suggesting new ideas and ideals, helping us to understand people, events, and conditions. Mr. George H. Knox knew what he was about when he advised the salesman of a great concern to "read what the most successful men are saying about your problems. Get the best books. A good book is a good investment, even though you get but one new idea out of it; a single idea has often lifted a man out of obscurity and made him immortal."

Lyman Abbott says: "A good book is a good friend. It will talk to you when you want it to talk, and it will keep still when you want it to keep still. A library is a collection of friends." Every boy should, therefore, own at least a few good books, chosen not for binding or colored plates but for their ability to stimulate one to greater, bigger things. The average older boy finds his time pretty well taken up. Too often he is tempted to read merely as a recreation and too often he interprets that to mean "light stuff"—something that takes no effort. That may be

true for a brainless boy; certainly it is not true of a fellow with a future. The fact that he has but a little time to read ought to make him more choice in his selection. Don't waste your reading moments. Make every one pay dividends. Read books that are evil-spirit destroyers—books that will make the fear of failure leave you, books that will make you forget you ever possessed a doubt or indecision. Read fiction, certainly, but not the kind that you find in many so-called popular magazines. Read real fiction from the best of pens, and read articles, current events, travel, applied mechanics, history, biography.

Some one has said that "the great consulting-room of a wise man is a library." If you don't know how to use a public library intelligently take an evening or two off and learn. A real education does not consist of having all the facts about everything in the world in your head but in knowing where to find these facts.

Wm. E. Channing once said: "It is chiefly through books that we enjoy intercourse with superior minds and these invaluable means of communication are in the reach of all. In the best books great men talk to us, give us their most precious thoughts, and pour their souls into ours."

Check up on your reading moments and see if they are producing worth-while results. Follow a definite line of reading for a month at a time. Keep a list in your notebook of the books you are going to read next. Read the book reviews in some standard magazine. Get acquainted with a few of the best authors. Put a small book in your pocket for those spare moments when you are waiting for some one. Keep a list of what you have read for a year and see if it is all it ought to be. Yes, read at least one good magazine each month—editorials, book reviews, current poetry, and all—and follow one good daily newspaper if time will permit, but remember the best of a paper isn't on the sport sheet or in the society notes.

The following list of books is first class and covers a wide range. Suppose you check it over and see how many of these you have read. Use this list as a guide.

Books for Older Boys

BOOKS OF FICTION

Little Minister, *J. M. Barrie*
Sentimental Tommy, *J. M. Barrie*
Buried Alive, *Arnold Bennett*
Spanish Gold, *George H. Birmingham*
Lorna Doone, *R. D. Blackmore*
T. Tembarom, *F. H. Burnett*
Bent Twig, *Dorothy Canfield*
Man from Glengarry, *Ralph Connor*
Shadow Line, *Joseph Conrad*
Typhoon, *Joseph Conrad*
Prophet of the Great Smoky Mountains, *C. E. (Murfree) Craddock*
Saracinesca, *F. M. Crawford*
Alice-for-Short, *William DeMorgan*
David Copperfield, *Charles Dickens*
Old Curiosity Shop, *Charles Dickens*
Dr. Luke of the Labrador, *Norman Duncan*
Mill on the Floss, *George Eliot*
Honorable Peter Stirling, *P. L. Ford*
Venetian June, *Anna Fuller*
Cranford, *E. C. S. Gaskell*
Abbé Constantin, *Ludovic Halevy*
Under the Greenwood Tree, *Thomas Hardy*
Cardinal's Snuff-Box, *Henry Harland*
Queed, *H. S. Harrison*
Marble Faun, *Nathaniel Hawthorne*
Prisoner of Zenda, *Anthony Hope*
Rise of Silas Lapham, *W. D. Howells*
Country of the Pointed Firs, *S. O. Jewett*
Stover at Yale, *Owen Johnson*
Kim, *Rudyard Kipling*
Uncle William, *J. B. Lee*
Four Feathers, *A. E. W. Mason*
Amos Judd, *J. A. Mitchell*
Bob, Son of Battle, *Alfred Ollivant*
Book of Buried Treasure, *R. D. Paine*
College Years, *R. D. Paine*

Great Locomotive Chase, *William Pittinger*
Rudder Grange, *F. R. Stockton*
Gentleman from Indiana, *Booth Tarkington*
Henry Esmond, *W. M. Thackeray*
Vanity Fair, *W. M. Thackeray*
Blazed Trail, *S. E. White*
Virginian, *Owen Wister*

SHORT STORIES

Marjorie Daw and Other Stories, *T. B. Aldrich*
Old Creole Days, *G. W. Cable*
Gallagher and Other Stories, *R. H. Davis*
Old Chester Tales, *Margaret Deland*
Luck of Roaring Camp, *Bret Harte*
Four Million, *O. (Porter) Henry*
Little Citizens, *Myra Kelly*
Plain Tales from the Hills, *Rudyard Kipling*
Odd Number, *Guy de Maupassant*
In Ole Virginia, *T. N. Page*
Prose Tales, *E. A. Poe*
Casting Away of Mrs. Lecks and Mrs. Aleshine, *F. R. Stockton*
Blue Flower, *Henry Van Dyke*
New England Nun, *M. E. Wilkins*

ROMANCE

The Conqueror, *G. F. Atherton*
Judith Shakespeare, *William Black*
American Fights and Fighters, *C. T. Brady*
Pride of Jennico, *Agnes* and *Egerton Castle*
The Crisis, *Winston Churchill*
Richard Carvel, *Winston Churchill*
Long Will, *Florence Converse*
The Spy, *J. F. Cooper*
Red Badge of Courage, *Stephen Crane*
Friar of Wittenberg, *W. S. Davis*
White Company, *Sir A. C. Doyle*
Black Tulip, *Alexander Dumas*
Three Musketeers, *Alexander Dumas*
Egyptian Princess, *G. M. Ebers*

History of England, *C. R. L. Fletcher* and *R. Kipling*
Little Shepherd of Kingdom Come, *John Fox, Jr.*
Reds of the Midi, *Felix Gras*
Brave Little Holland, *W. E. Griffis*
Les Miserables, *Victor Hugo*
To Have and to Hold, *Mary Johnston*
Nancy Stair, *E. M. Lane*
If I Were King, *Justin McCarthy*
Hugh Wynne, *S. W. Mitchell*
Sundering Flood, *William Morris*
Red Rock, *T. N. Page*
Seats of the Mighty, *Sir Gilbert Parker*
Scottish Chiefs, *Jane Porter*
Cloister and the Hearth, *Charles Reade*
Helmet of Navarre, *Bertha Runkle*
Kenilworth, *Sir Walter Scott*
Rob Roy, *Sir Walter Scott*
Monsieur Beaucaire, *Booth Tarkington*
Ben Hur, *Lewis Wallace*
Gentleman of France, *S. J. Weyman*
Love in the Eagle's Nest, *C. M. Yonge*

Books of Biography

Twenty Years at Hull House, *Jane Addams*
Promised Land, *Mary Antin*
Margaret Ogilvie, *J. M. Barrie*
Memories of My Life, *Sarah Bernhardt*
Paul Jones, Founder of the American Navy, *A. C. Buell*
Tuscan Childhood, *L. C. Cipriani*
Personal Recollections of Joan of Arc, *S. L. Clemens*
The True Thomas Jefferson, *W. E. Curtis*
Robert R. McBurney, *L. L. Doggett*
Sailor's Log, *R. D. Evans*
The Many-Sided Franklin, *P. L. Ford*
Personal Memories, *U. S. Grant*
Year in a Coal Mine, *Joseph Husband*
God's Troubadour, *Sophie Jewett*
Alexander Hamilton, *H. C Lodge*
Daniel Webster, *H. C. Lodge*

Romance of the Romanoffs, *Joseph McCabe*
Charles Frohman, Manager and Man, *I. F. Marcosson* and *Daniel Frohman*
The First Napoleon, *J. C. Ropes*
Charles Dickens and His Girl Heroines, *Belle Moses*
Story of My Boyhood and Youth, *John Muir*
Diplomat's Wife in Mexico, *Mrs. E. L. O'Shaughnessy*
Life of Alice Freeman Palmer, *G. H. Palmer*
In Our Convent Days, *Agnes Repplier*
Elizabeth Fry, *L. E. Richards*
A Far Journey, *A. M. Rihbany*
Making of an American, *Jacob A. Riis*
Shakespeare, the Boy, *W. J. Rolf*
"Honest Abe," *Alonzo Rothschild*
My Life as an Indian, *J. W. Schultz*
On the Trail of the Immigrant, *E. A. Steiner*
Letters of a Woman Homesteader, *E. P. R. Stewart*
My People of the Plains, *Ethelbert Talbot*
Life of Abraham Lincoln, *Ida M. Tarbell*
Life and Letters of John Hay, *W. R. Thayer*
Patrick Henry, *M. C. Tyler*
A Child of the Orient, *Demetra Vaka*
Up from Slavery, *Booker T. Washington*
Old Friends, *William Winter*
Recollections of Thirteen Presidents, *J. S. Wise*
Seven Ages of Washington, *Owen Wister*

BOOKS OF HISTORY

At the Edge of the War Zone, *Mildred Aldrich*
Hilltop on the Marne, *Mildred Aldrich*
Under the Red Cross Flag, *Mable Boardman*
The Cause; Poems of the War, *Lawrence Binyon*
Collected Poems, *Rupert Brooke*
Ambulance No. 10, *Leslie Buswell*
Christine, *Alice Cholmondeley*
Poems of the Great War, *J. W. Cunliff*
Carry On, *Coningsby Dawson*
Plattsburg Manual, *O. O. Ellis* and *E. B. Gary*
Over the Top, *A. G. Empey*

The Challenge of the Present Crisis, *H. E. Fosdick*
You Are the Hope of the World, *Hermann Hagedorn*
Kitchener's Mob, *J. N. Hall*
A Student in Arms, *Donald Hankey*
First Hundred Thousand, *Ian (Beith) Hay*
My Home in the Field of Honor, *F. W. Huard*
My Home in the Field of Mercy, *F. W. Huard*
Spires of Oxford and Other Poems, *W. M. Letts*
Flying for France, *J. R. McConnell*
Harvest Moon, *J. P. Peabody*
Kings, Queens, and Pawns, *Mary R. Rinehart*
My Fourteen Months at the Front, *W. J. Robinson*
Poems, *Alan Seeger*
Rhymes of a Red Cross Man, *R. W. Service*
German Versus Civilization, *William Roscoe Thayer*
Poems, *Emile Verhaeren*
Fifes and Drums, *The Vigilantes*
Why We Are at War, *Woodrow Wilson*

Books of Travel

Roughing It, *S. L. Clemens*
My Lady of the Chinese Courtyard, *Mrs. E. B. Cooper*
Two Years before the Mast, *R. H. Dana*
Romance of the Colorado River, *F. S. Dellenbaugh*
Viva Mexico, *C. M. Flandrau*
Vagabond Journey around the World, *H. A. Franck*
Adrift on an Ice-Pan, *W. T. Grenfell*
Old Santa Fe Trail, *Henry Inman*
Land of Poco Tiempo, *C. F. Lummis*
Our National Parks, *John Muir*
Secrets of Polar Travel, *R. E. Peary*
Travels with a Donkey, *R. L. Stevenson*
Heart of the Balkans, *Demetra Vaka*
Mount Vernon: Washington's Home and the Nation's Shrine, *Paul Wilstach*

Books of Character Development

Talks on Books, *L. Abbott*
Body-Builder, *D. B. Brink*

Call for Character, *E. I. Bosworth*
A Young Man's Jesus, *Bruce Barton*
Ideal Life, *Henry Drummond*
Gospel of the Second Mile, *H. E. Fosdick*
Cartoons in Character, *A. K. Foster*
Dynamic of Manhood, *L. H. Gulick*
Gospel of the Second Chance, *J. S. Holden*
Life's Clinic, *E. H. Hooker*
What Career, *Hale*
The Jesus Way, *D. Hyde*
Essentials, *C. E. Jefferson*
College and the Man, *D. S. Jordan*
Fight for Character, *H. C. King*
Rational Living, *H. C. King*
The Success Books, *O. S. Marden*
Out of the Fog, *C. K. Ober*
How to Hold a Job, *H. L. Piner*
Making of an American, *Jacob Riis*
Marks of a Man, *R. E. Speer*
Principles of Jesus, *R. E. Speer*
A Young Man's Questions, *R. E. Speer*
Times and Young Men, *J. Strong*
Personal Economy and Social Reform, *H. G. Wood*

Books of Poetry and Drama

Half Hours, *J. M. Barrie*
Book of Job, *Bible*
Book of Ruth, *Bible*
Girlhood of Shakespeare's Heroines, *M. C. Clark*
Silver Box, *John Galsworthy*
She Stoops to Conquer, *Oliver Goldsmith*
Seven Short Plays, *Lady I. A. P. Gregory*
Shakespeare's Heroines, *A. B. Jameson*
Servant in the House, *C. R. Kennedy*
Barrack-Room Ballads, *Rudyard Kipling*
Canterbury Pilgrims, *P. W. Mackaye*
Jeanne D'Arc, *P. W. Mackaye*
Blue Bird, *Maurice Maeterlinck*
Story of the Round House and Other Poems, *John Masefield*

Great Divide, *W. W. Moody*
Sherwood, *Alfred Noyes*
Tales of the Mermaid Tavern, *Alfred Noyes*
Rubaiyat, *Omar Khayyam*
Marlowe, *J. P. Peabody*
The Piper, *J. P. Peabody*
Ulysses, *Stephen Phillips*
Historical Tales from Shakespeare, *Sir A. T. Quiller-Couch*
Oxford Book of English Verse, *Sir A. T. Quiller-Couch*
Famous Rhymes, *J. W. Riley*
Songs of Cheer, *J. W. Riley*
Lay of the Last Minstrel, *Sir Walter Scott*
Spell of the Yukon and Other Verse, *R. W. Service*
Twelfth Night, *Wm. Shakespeare*
As You Like It, *Wm. Shakespeare*
Androcles and the Lion, *G. B. Shaw*
Riders to the Sea, *J. M. Synge*
Hour-Glass, *W. B. Yeats*

BOOKS OF SCIENCE: WHAT AND HOW TO DO BOOKS

Jack of All Trades, *Dan C. Beard*
What a Girl Can Make and Do, *Lina and A. B. Beard*
Story of the Submarine, *Farnham Bishop*
On the Battle-Front of Engineering, *A. R. Bond*
Model Aeroplanes and Their Motors, *G. A. Cavanaugh*
Book of Magic, *F. A. Collins*
Book of Wireless, *F. A. Collins*
Boys' Book of Model Aeroplanes, *F. A. Collins*
Wireless Man, *F. A. Collins*
Beginner's Garden Book, *Allen French*
Advanced Projects in Wood-Work—Furniture Making, *I. S. Griffith*
Handicraft for Handy Boys, *A. N. Hall*
Photography Simplified, *P. N. Haslunk*
Magician's Tricks and How They Are Done, *Henry Hatton* and *A. Plate*
Homans' First Principles of Electricity, *J. E. Homans*
A. B. C. of the Motor Cycle, *W. J. Jackman*
New Art of Flying, *W. B. Kaempffert*

Three Hundred Things a Bright Girl Can Do, *L. E. Kelley*
Wireless Telegraphy and Telephony, Simply Explained, *A. P. Morgan*
How to Run an Automobile, *V. W. Page*
Boys' Book of Sports, *Grantland Rice*
Girl Who Earns Her Own Living, *A. G. Richardson*
Feeding the Family, *M. S. Rose*
Things a Boy Should Know about Electricity, *T. M. St. John*
Masters of Space, *W. K. Towers*
Aircraft of Today, *C. C. Turner*
Harper's Aircraft Book, *A. H. Verrill*
Harper's Book for Young Gardeners, *A. H. Verrill*
Harper's Wireless Book, *A. H. Verrill*
Profitable Vocations for Boys and Girls, *F. M. Weaver*
Mission Furniture, *H. H. Windsor*

CHAPTER XVIII

FIRST AID TO THE INJURED

In a brief chapter on First Aid obviously one can give only the essential points. Just why it is best to do a thing this or that way cannot be fully presented. There are a few general directions, however, that should be borne in mind in any case of accident:

A boy, to be helpful in case of accident or sudden illness, should be cool, deliberate, reasonable, use common sense, and decide definitely what to do and do it. If the injury is serious, call a reputable doctor and at the same time administer such First Aid as is needed. Insist that the crowd be kept back and make the patient as comfortable as possible by loosening all tight clothing. Place patient on side if vomiting. If the patient's face is pale and he is cold, place him flat on his back and warm him by rubbing, covering with coat, etc. If there is bleeding from a hidden injury, locate it at once and treat it properly. In order to do this satisfactorily the clothing may need to be removed; if the injury is painful or bleeding profusely, the greatest gentleness is demanded and clothing had much better be cut away with sharp knife or scissors. When you can add to the comfort of the patient without danger, always do it. If not severely injured let him sit up if he so desires, and give him fresh water if he calls for it—cold water, if possible; it is always more refreshing. If badly needed, it may be well to give a mild stimulant. Whisky or brandy are not at all necessary; use, instead, aromatic spirits of ammonia, unless it is a head injury. Never give an unconscious person a stimulant. If there are broken bones and the patient must move, the broken bone should always be secured

by applying some temporary splint. Exercise great care in handling the injured.

Conditions of Depression

There are a number of conditions which may be classified under this head, such as shock, heat exhaustion, severe bleeding, and fainting. As a group, these have certain definite earmarks. The patient is usually conscious, but consciousness is dulled. In fainting, consciousness is absent for a few minutes, the face is pale, and the breathing is rapid and shallow, the pulse is rapid and weak, the skin cool and covered with a clammy sweat. All the vital functions seem weakened and depressed. The heart is working over-time to keep going, consequently the patient is cold and inclined to be dull.

What can we do to aid such a patient? First, send for a doctor if possible. Next make the patient comfortable. Place on the back with the head low. Since the patient in this condition is cold, make every effort to warm him. Rouse him by stimulating the heart and lungs. Warm him by wrapping him in a blanket. If in cold weather, warm the blanket. If no blankets can be had, use clothing of any sort, putting it under as well as over him. If he is conscious enough to swallow, hot drinks will help tremendously to warm him. Use aromatic spirits of ammonia to stimulate the heart and induce deeper breathing. The dose is one-half teaspoonful in one-half glass of water. This can be repeated in twenty minutes. If you cannot get aromatic spirits of ammonia, use hot black coffee, preferably with sugar—it will do very well. Even hot water with sugar is helpful. In cases of depression due to severe hemorrhage, the bleeding must be stopped before the stimulant is given. The use of compresses and tourniquets, also where and how to apply them in order to stop bleeding, will be discussed under that heading (see page 323).

When there has been a severe injury to the patient and he is in this depressed condition, we call it shock; whatever other injury there is, except severe hemorrhage, shock should be treated first. If a patient suddenly becomes pale, falls, and is completely unconscious, he has probably fainted. By lowering the head, loosening the clothing, and sprinkling the face with

water the patient will respond quickly. Heat exhaustion is shock from excessive heat and signs of depression are apparent. Treatment should be the same as outlined above.

Head Injuries

Conditions known as head injuries can be placed in one group because the symptoms are the same and the treatment follows the same lines. Under this classification come those conditions where the patient's consciousness is dulled or absent for hours, the skin is flushed, the breathing deep, noisy, and somewhat slow, the pulse is full and slow, and the skin is hot, either wet or dry. Concussion of the brain, fracture of the skull, apoplexy, epilepsy, drunkenness, sunstroke—all come in this general class.

In this group of injuries the patient is unconscious, yet the heart seems to be working all right; often the breathing is not labored yet there seems to be over-stimulation, so there is no need of giving stimulants. As in all cases of injury, the patient should be made comfortable and in this group the head should be raised. If the temperature seems high, place a cold, wet cloth on the head. Remember to call a doctor unless consciousness returns at once and you know the concussion was slight.

Wounds and Infection

A wound is an injury in which the skin is broken and there is usually more or less damage to the tissues beneath it. There are (1) cut or incised wounds, such as are caused by sharp knives or glass; (2) torn or lacerated wounds, where the tissues are torn rather than cut; and (3) punctured wounds, usually quite deep, caused by sharp-pointed instruments.

Before we take up wounds in detail we must briefly discuss infection. Bacteria, especially those varieties which produce pus, exist everywhere. The skin is our protection against all such bacteria. When the skin is broken, as happens in any wound or compound fracture, the bacteria find their chance to enter the body. From the use as a dressing of a handkerchief with germs on it, or from the dust of the air, or from the contact of dirty hands, these bacteria often enter the wound and if left undisturbed infection takes place and pus is formed. A badly

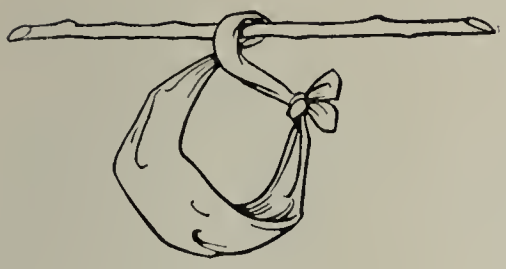
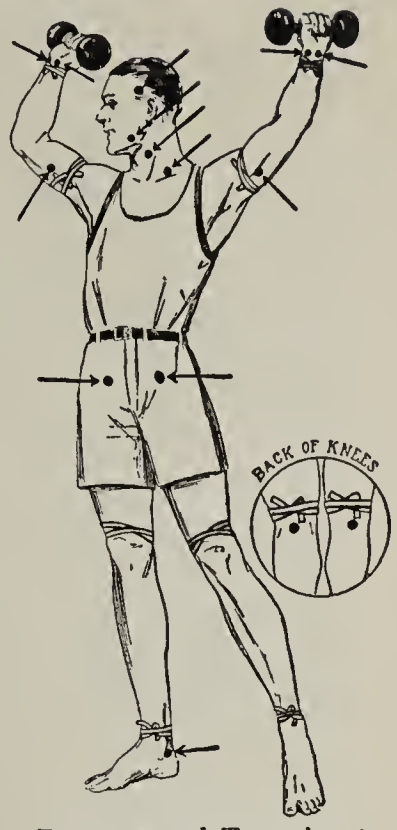


Fig. 1



Pressure and Tourniquet Points

infected wound may quickly result in the loss of life; consequently the treatment of all wounds is very important.

This treatment can be considered under two heads: (1) Treatment of wounds *without* severe hemorrhage and (2) treatment of wounds *with* severe hemorrhage. Remember to send for a doctor at once if the wound is severe. Cut clothing away from wound and be sure that nothing sticks to it. Do not touch the wound with the hands or let the patient touch it. There is no hurry unless the air is dusty; if so, cover at once as there is danger of infection. If you have a surgically clean, sterile bandage, free from germs, apply it to the wound and bandage. No attempt should be made to wash or disinfect the wound, unless it be to pour iodine into it from a first aid kit.

Be sure to treat patient for shock if there is any. If faint, have him lie down with head low. The first thing to do in case of wounds with severe hemorrhage is to stop the bleeding. In order to do this you must know from which kind of vessels the blood comes—from the arteries, the veins, or the more slowly-bleeding capillaries. Arterial blood is bright red and comes from the wound in spurts or jets. Blood is lost very rapidly. Vein bleeding is recognized by a steady flow of dark colored blood. Capillary bleeding is slow oozing from the wound, with the blood brick red in color. Arterial bleeding is stopped by pressure of the finger on certain pressure points or by tourniquet on tourniquet points. For illustration see Fig. 1. First try pressure with the fingers; meanwhile have someone prepare a tourniquet, the simplest of which can be made by tying a handkerchief loosely

about the limb, tightening it by twisting a small stick inserted through it. Tighten until bleeding stops and then keep stick there by tying one end to the injured part. A long stocking also makes a good tourniquet. *Warning:* Do not forget that you have stopped the circulation in the part below the tourniquet. That part will die if it does not get a fresh supply of blood once in a while; consequently if the tourniquet must be kept tight for a long time, pending the doctor's arrival, loosen once an hour, then tighten again if bleeding starts. Venous blood can usually be stopped by pressure of a sterile compress directly over the wound. In severe cases a tourniquet may be necessary below the wound. Often with pressure the venous bleeding will stop. If the blood vessels of the neck are cut, blood will be lost rapidly and the patient will die. In this case disregard infection and press your hand tightly against bleeding point. Capillary bleeding also may be stopped by compress over wound. When such bleeding is stopped, if wound is still uncovered, cover with sterile compress. In all such cases keep patient quiet with head low. No stimulant ought to be given unless it is a question of life and death.

First Aid Materials

The main uses of the bandage are (1) to keep dressings in place; (2) to secure splints; (3) to stop bleeding from pressure; (4) for use as sling or to keep in normal position parts of the body which have been dislocated by injury. There are several kinds of bandages: The triangular bandage; the roller bandage; and special bandages.

The Triangular Bandage. The triangular bandage is best suited for first aid because it can be easily made, can be used in so many different ways, and is not difficult to apply. There are three general ways in which the triangular bandage can be used: the unfolded triangle, the folded triangle, and the folded narrow bandage sometimes called the cravat bandage.

The prepared triangular bandage has the advantage of having many different methods of application. Unfolded, it can be used in the following ways:

1. The triangular bandage as an arm-sling: Place one end of the bandage over the uninjured shoulder, placing the point

Fig. 2

Fig. 3

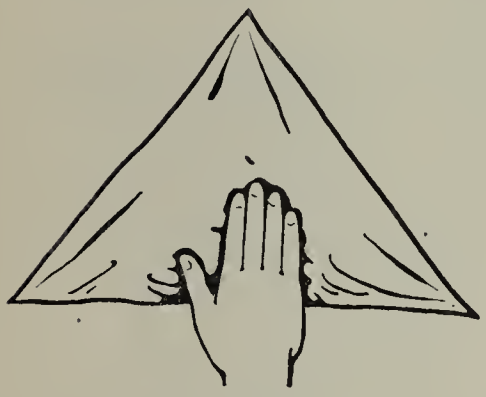


Fig. 4

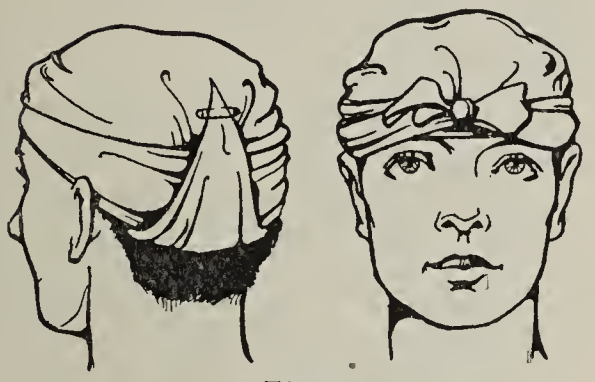


Fig. 5

Fig. 6

of the triangle under the injured arm, then take the lower end of the bandage up over the injured side and tie to upper end behind the neck. (Fig. 2). Another good arm-sling can be made by pinning the shirt or coat sleeve to the shirt or coat.

2. The triangular bandage as a foot-bandage: Place the foot in the center of the bandage, toes toward the point. Then bring the point up over the toes to the instep, next bring the ends up across the instep and tie behind the ankle. (Fig. 3).

3. The triangular bandage as a hand-bandage: The hand-bandage is applied exactly like the foot-bandage. The hand is placed palm down in the center of the triangle, fingers toward the point. The point is then turned up over the back of the hand, the ends brought up over the hand around the wrist and tied. (Fig. 4).

4. The triangular bandage as a head-bandage: As a head-bandage, fold a hem on the long side of the bandage, place the hem on the forehead just above the eyes with point to back of the head, then carry the two ends of the bandage around to the head above the ears, cross them at the back, bring around and tie in front, drawing the point down tight, then turn up over the head and pin. (Fig. 5).

The Cravat Bandage. The cravat bandage can be used in a number of ways. To make this bandage, bring the point of the triangle to the center of opposite side and fold lengthwise three times.

1. The cravat bandage as an eye-bandage: Place the center of the cravat over the injured eye, bring ends around the head and tie at the back of the head. (Fig. 6).

2. The cravat bandage as a bandage for the jaw: In this case two cravats are necessary. Apply center of one across the chin in front and tie in back of the neck. Place center of the other under the chin, tie over the top of the head or cross on top of the head and tie under chin. (Fig. 7).

3. The cravat bandage as a neck-bandage: The cravat bandage can be used to cover the neck as any neck scarf. (Fig. 8).

4. The cravat bandage as a bandage for palm of the hand: Place the cravat across the palm of the hand, then cross at the back of the hand and again at the front of the wrist, bring around and tie at the back of the wrist. (Fig. 9).

5. The cravat bandage used to keep splints in place or dressings on extremities: In this case it is simply carried around and tied in a suitable place. The number of cravats necessary will depend on the size of the splints or dressing being used.

Fig. 7

Fig. 8

The Roller Bandage. The roller bandage can be used for any of the conditions described. To apply correctly it requires more practice and skill than the triangle bandage. The general rules covering application of the roller bandage are as follows: The best roller bandage is made of gauze or cheesecloth, although any material may be used. It can be purchased in different sizes. (Every boy should know how to roll his own bandage.)

1. The bandage is applied by holding the roll in the right hand and the loose end in the left, unless, of course, you are left-handed. Place end on the desired spot and start unrolling the bandage.

2. When unrolling the bandage, hold it in the right hand so that the thumb is on the outer side and unroll after the manner of unrolling a carpet.

3. Be careful in applying roller bandage that the bandage is not drawn too tight. Be especially careful if it is being applied around a splint, because of the probable later swelling of the part. If finger or toes of bandaged limb begin to show blue or there is numbness or pain, loosen the bandage at once.

4. Always apply bandage over a splint and not under it.

5. Bandage from extremities towards the heart, leaving tips of fingers or toes uncovered so that they may be observed.

Fig. 9

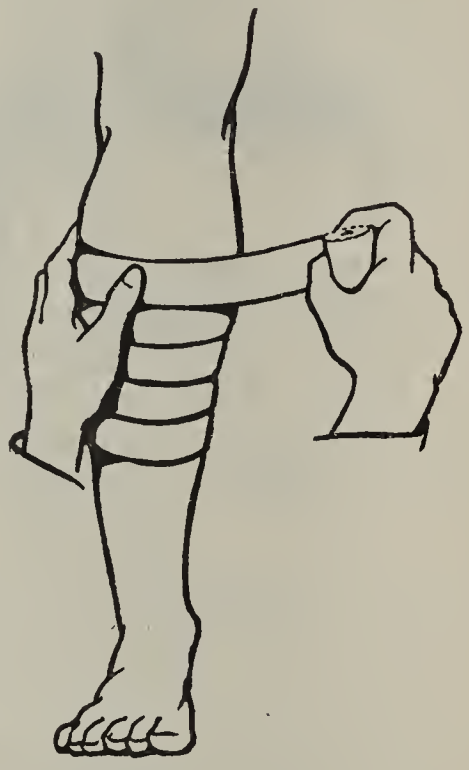


Fig. 10

6. Place the parts to be bandaged in the position in which you wish them to remain, bearing in mind that changing to a new position may cut off circulation.

7. In bandaging a wound immediately, remember that swelling may occur. Be ready to remove or loosen bandage at once when such swelling causes it to become too tight.

8. Roller bandages are applied in several ways, depending on the condition and shape of the part injured. The simplest method of application is the circular, but this is used to advantage only when the part to be bandaged is of the same circumference throughout. The circular method consists of a series of circular turns from below upward, each time overlapping the upper

third of the previous lap. (Fig. 10). Both edges of the bandage should be flat on the skin. When the part is larger at one end than the other, use the circular method as long as both edges touch the skin and turns over-lap, but when spaces are left between laps, another method, called the spiral reverse, must be resorted to.

To make the spiral reverse, place the thumb on the lower edge of the bandage, hold it slack for about three inches and turn the bandage one-half over toward you and continue on around

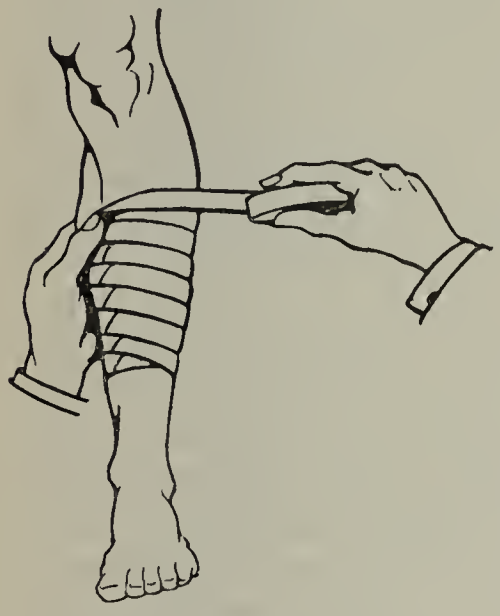


Fig. 11

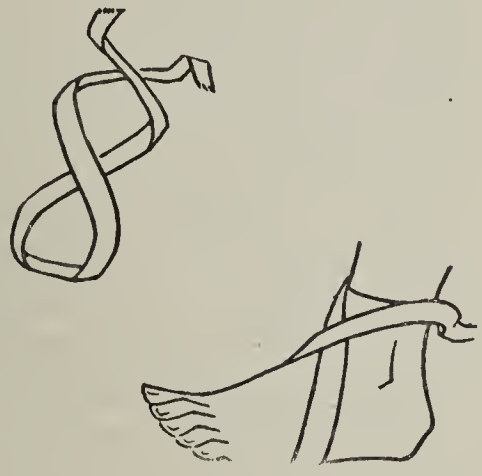


Fig. 12

the wounded part in the same direction, reverse again at the proper place. The reverses should be in center of the limb or at its outer side and all reverses should be in one line up the limb. (Fig. 11).

The figure-eight method is a useful method in bandaging around joints or in going around a right-angled course such as the heel or the elbow. (Fig. 12). It consists of a series of loops, each overlapping the other by two-thirds of the width of the bandage at the middle part of the eight where the bandage crosses, one loop going over and the other below the joint. This bandage does not cover the tip of the joint. To cover the tip of the joint, place the first turn of the bandage over the tip of the joint, then place one turn above and one below and you come immediately into a figure eight.

The Use of Compresses. Under the treatment of wounds, compresses were mentioned. A compress is simply something which is used to press and cover an open wound. It should be large enough to cover the wound completely and lap over it at least one or two inches, according to the size of the wound. They are made preferably of antiseptic gauze or sterilized cheese-cloth.

These compresses must be as nearly as possible surgically clean and absolutely free from bacteria. If material is not clean, it should be disinfected by boiling. Then great care should be taken not to contaminate again by handling before applying to wound. Clean gauze can be had at any drug store. The Red Cross First Aid Package contains a sterile compress and by following directions, can be applied so that the wound does not become infected. Too much emphasis cannot be laid on the use of the sterile compress and prevention of infection of wounds.

Splints. Splints are used primarily to stop movement of a broken bone while it is knitting, and must therefore be of stiff, rigid material. Such material as light wood, shingles, card-board, broom handles, umbrellas, canes, rolls of cloth or pillows with board outside, may be used in emergencies. Splints should be long enough to stop movement in the nearest joint above or joint below and should be as wide as the limb if possible. They should always be padded on the side toward the limb; cotton, waste flannel or pieces of cloth may be used for this purpose. Splints must be bandaged tight enough to prevent slipping or movement but not so tight as to stop circulation. Great care and special attention should be given to this point.

Injuries in Which the Skin Is Not Broken

Fractures. When a bone is broken you call it a fracture. It is a very common injury. A simple fracture is one in which the skin is not broken or pierced. A compound fracture is one in which the skin is pierced. Poor handling of a simple fracture may result in a compound fracture.

In most cases of simple fracture first make the patient as comfortable as possible and then call a doctor. If the injury is such that you think a bone is broken, treat as a fracture without

further examination. If the doctor is expected soon, nothing else need be done unless there is shock; if so, treat for that (see page 321).

In applying splints any kind of bandage may be used: handkerchiefs, pieces of clothing, and the like. A sling may even have to be constructed. For this a large handkerchief or towel can be used.

A compound fracture is much more serious. The skin may be broken and there may be infection and months of sickness may result. Sometimes the wound leads to the bone or the bone may even protrude through the flesh and result in infection of the bone. This is very serious; send for a doctor at once. Allow nothing to touch the wound. If necessary, cut away clothing and expose the wound. Apply a sterile compress if you have one. Do not attempt to restore the bone if it protrudes through the skin. Always treat the wound first, then the fracture. If patient must be moved, apply best splints available with greatest care so there will be no motion in the broken part. Use greatest possible care in moving, avoiding jars or sharp bumps.

Dislocation. Dislocations are injuries of the joints and are due to the head of the joint slipping out of the joint-socket. When this takes place, the ligaments which normally keep the bone in place are often torn loose. The most common dislocation is that of the shoulder joint. The dislocation of the jaw and fingers, however, is not uncommon. The noticeable deformity, the unusual appearance as compared with the uninjured side, and the limited motion help in making sure that the difficulty is a dislocation.

Send for a doctor at once and, except in dislocation of the jaw or fingers, wait until he arrives. When no attempt is made to replace the dislocation, make the patient as comfortable as possible and treat with cloths wrung out in very hot water.

Dislocation of the jaw. To reduce this dislocation wrap both thumbs with bandage so they will be protected from injury. Place both thumbs on lower teeth, each side of lower jaw. Press first down and then back. As soon as the jaw starts into place, slide thumbs off the teeth and withdraw them for as the jaw springs into place it is apt to injure them.

Dislocated fingers can be reduced without great difficulty. Firmly grasp dislocated finger on hand side, pull the end of the finger straight away from the hand and it will usually slip into place.

Bruises. Very often a severe bruise results in the flesh turning black and blue. For a severe bruise apply hot or cold water to keep down the swelling.

Sprains. A sprain is an injury to the ligaments and tendons around a joint. Swelling and pain always follow a sprain. Cold cloths will often keep down the swelling. Later treatment is to alternate with hot and cold cloths over the joint. Use liniments and massage. Repeat treatments a number of times a day. Using the joint, if unnecessary, is foolish. Rest is needed and sometimes even a splint is advisable. Support with figure eight bandage.

Carrying the Injured

First aid should always be given before a patient is moved; if injury is severe, do not move unless absolutely necessary until doctor arrives.

During transportation, clothing should be loosened. Patient should be kept warm and made comfortable as possible.

The method of transportation will vary according to the injury. It is always safer to carry patient lying down and a

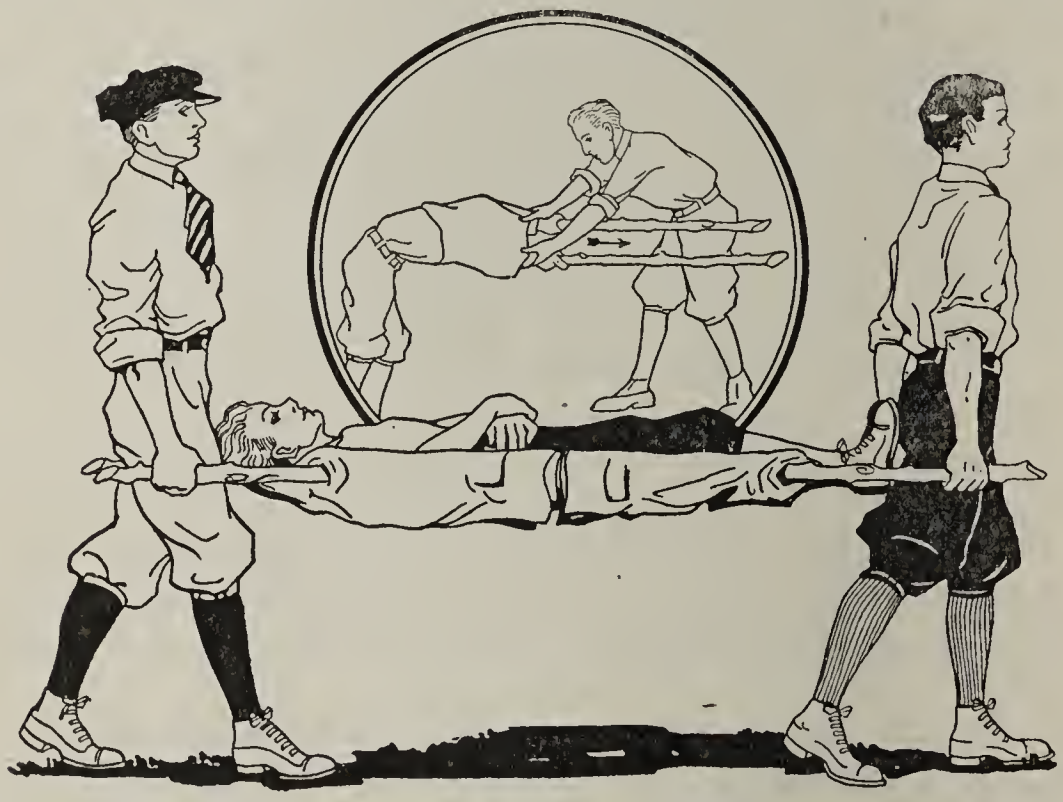


Fig. 13

stretcher can be improvised as shown in Fig. 13. Other methods of transportation are given in the illustrations and explain themselves. These carries can be used in relay races and every boy should know them.

Fig. 14

Fig 15

Fig. 16

Fig. 17

Artificial Respiration

There are two methods of artificial respiration, the Sylvester and Schafer methods. Of the two, Schafer's, the better one, will be described.

Place the patient face down with a folded coat or pillow under the chest, the head turned to one side and mouth opened. Be sure that tongue is not obstructing passage to the throat. Place the outspread hands on the small of patient's back, so that the thumbs nearly meet on either side of the backbone and the little fingers lie along the lower ribs. Lean forward, keeping the arms straight, slowly produce firm downward pressure in order to decrease size of chest cavity and press all the air possible out of the lungs. Then release pressure quickly, applying a little sudden pressure just at the end. Then allow the lungs to fill with air again because of their natural elasticity. As pressure is applied and released to obtain the right rhythm of breathing repeat some phrase as "one thousand and one, one thousand and two," exerting pressure slowly on the first part of the phrase, releasing rapidly as described on the second part. Repeat until patient is breathing properly.

Artificial respiration should always be consistently used while waiting for a doctor when trying to resuscitate a drowning person, or one suffering from electric shock or gas asphyxiation (see page 177).

Burns, Frostbite, and Freezing

Burns when extensive are very serious and may demand treatment for shock and the administration of stimulants. A doctor should be called in such a case. Three degrees of burns are usually described, depending on the depth to which the heat penetrates: In the first degree, the skin is reddened and smarts; in the second degree, the skin is reddened, there is noticeable swelling and often there are blisters; in the third degree, the skin is usually scorched or blackened. There is swelling and great pain. The burn has penetrated below the skin.

Treatment for burns of the first degree: Bathe with baking soda in water or with olive oil, lard, carbolized vaseline, boric acid, ointment, or wet compresses.

Treatment for burns of the second degree: Pierce the blisters at the edge with a sterile needle and apply remedies as above. Cover all surfaces with sterile compress. Infection can take place here as in any other wound.

Treatment for burns of the third degree: Call a doctor at once. Treat for shock. Cover burns with clean cloths wet in baking soda solution.

Burns from acids should be washed with solution of baking soda immediately.

Burns from lye or alkalis should be treated quickly with vinegar and water, then dressed as above.

Frostbite and Freezing. The effect of long exposure to cold is to make the fingers, toes, nose, or ears numb, white, and hard. On coming into a warm place they become red and swollen, and itch. Rub frozen parts with snow or cold water. As soon as circulation is established and sensation returns the parts will be painful and probably swell. This disappears, however, and usually there is little or no more trouble.

When a person is nearly frozen, the whole body is affected and unconsciousness may result. When treating such a person, the

patient should be kept in a cool place for hours and the frozen parts rubbed with snow or wrapped in cold wet cloths. A stimulant should be given, plenty of coffee or tea. The temperature of the room should be raised gradually. Final removal to a warm room should be made with greatest care.

Poisoning

In any case of poisoning there are three things to be done: First: Send for a doctor. Second: Empty the stomach of the poison. Third: Give an antidote. An antidote is something that neutralizes the poison.

An emetic may be given to empty the stomach, such as a teaspoonful of mustard in a glass of warm water, or a solution of salt in warm water, or even soapsuds. Mechanical emetics may also be used to accomplish the same end, such as tickling the back of the throat with the finger or with a feather. If poison still remains, have patient drink more water and go through the same procedure again. After vomiting freely, the patient should drink a large amount of milk, and eat raw eggs or a quantity of gruel made of milk and flour.

Besides the remedies already suggested, the general condition of the patient must be watched. Shock follows poisoning very often and should be treated at once. Stimulants, heat, and even artificial respiration should be given if breathing is feeble or has stopped.

Common Emergencies

Nosebleed. Usually nosebleed will stop of itself. If it does not, then place roll of paper lightly under the upper lip, press lip between nostrils, or apply something cold to the back of the neck. Avoid blowing or picking the nose because this dislodges the blood clot and bleeding will commence again.

Toothache. This is usually due to a cavity in the tooth. Clean the cavity out with cotton twisted on the end of a tooth pick. Then soak small piece of cotton in oil of cloves or camphor, squeeze dry and place in cavity. This will usually give relief. Have dentist see it at once and have the teeth examined for other difficulties.

Earache. A number of remedies are used in earache: hot cloths, hot water bottle, and a bag of hot salt are helpful. A few drops of hot sweet oil and a plug of cotton often give relief. Severe earache always demands the services of a doctor as disease of the middle ear may result in breaking of the ear-drum which may be prevented if treated in time.

Something in the Eye. Do not rub the eye. Keep it shut, allowing tears to come freely and then lift the upper lid away from the eye-ball, pulling it down over the lower lid. This will ofttimes dislodge the offending particle. Blowing the nose hard several times is helpful. You may need the help of another party to look carefully into the eye and to remove the particle with the twisted corner of a clean handkerchief or cotton swab. It is easy to see the under side of the lower lid, but rather hard to see the under side of the upper lid. To turn the upper lid up, place a slender pencil at the natural wrinkle and press gently in and down while with the other hand you grasp the eye-lashes and pull them outward and upward, thus exposing the under side of the upper lid. The particle can then usually be seen and removed. When the particle is embedded in the eye-ball and cannot be removed, see a doctor at once.

Cramps, Stomach Ache. As everyone knows, cramps are severe pains in the abdomen, probably due to indigestible or unwholesome food. A hot water bottle placed on the abdomen, accompanied by rubbing, often gives relief. A teaspoonful of soda in glass of hot water or spirits of peppermint or ginger are often helpful. Indigestible matter may be gotten rid of by vomiting or by the aid of a cathartic, such as Epsom salts or Seidlitz powder. If pain continues, call a doctor because such trouble might easily develop into appendicitis.

Diarrhea. Diarrhea is caused by bad food mixture or medicine. It may be just a few extra movements with no general ill feeling. However, diarrhea from spoiled food may result in serious illness. A quick purge should be taken, such as a dose of Epsom salts, repeated in three hours if necessary. This will tend to increase the diarrhea at first, but will gradually improve conditions. If there is no relief, better see a doctor at once.

Poison Ivy and Poison Oak. Certain types of wild ivy, sometimes called oak, produce a bad poison. The poison is a heavy oil

and spreads easily especially when brought into contact with a person who is perspiring. The oil causes an irritating itch, often a red rash which, unless promptly treated, rapidly develops into blisters accompanied by swelling. First wash with strong soapsuds and dry. Then wash well with alcohol if it is available. Follow this with generous application of the following:

Carbolic Acid—½ dram
Zinc Oxide —½ ounce
Lime Water—4 ounces

Permanganate of potash in mild solution is also helpful, or a ten per cent solution of guendelia.

Sunburn. No matter how much is said about prevention of sunburn, remedies for the same will always be needed. Any soothing ointment is good. If there are blisters and the shoulders are painful after the ointment has been applied, cover with sterile gauze.

CHAPTER XIX

SAFETY FIRST[1]

R. T. Wyse

Fifty per cent of the deaths by accident are entirely unnecessary—a sad commentary on the law that "Self-preservation is the first law of life." Life should not be risked except for a great cause, but many of us do it continually and thoughtlessly with no other purpose than unnecessarily saving a little time. Alertness as to personal safety has been dulled by the protections of civilization by which man feels himself surrounded. This and the selfishness which makes us heedless of our responsibility for our brother's life, are the causes of most of the dangers which surround us.

If we were to plan thoughtfully to live more wisely in this regard, and to take no chances for ourselves or others we would find immediately that we have much to learn. Our education has been much at fault. Most of us have not been taught those things about our personal well-being and safety that are vital. Herbert Spencer in his book on "Education" writes most scathingly. "Do but consider for a moment . . . that there are twenty ways of going wrong to one way of going right; and you will get some idea of the enormous mischief that is almost everywhere inflicted by the thoughtless, haphazard system in common use." He then refers to the savages who in a cold climate reject warm blankets for a string of beads, and says our mental preferences in education are just as barbaric and unreasonable, as most of us prefer to shine and make ourselves conspicuous by

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exhibiting a knowledge of impressive but unpractical learning while utterly neglecting training in the things that are vitally necessary.

Accidents go on increasing—almost as destructive during each year of peace as if a great war were going on. Though sanitary laws and protective devices increase, inventions involving danger also increase. In the United States alone over 2,000,000 accidents occur yearly.

Falls

The highest toll is from falls. As half of all these are unnecessary, the majority must be from the foolishness of taking chances or the selfishness of not considering the safety of others. Men working in high places without proper protection against falling or without nets provided in case of a fall; the improper placing of ladders (ladders constituting one-third of accidents from falls); the falling on sharp instruments (pitchforks, sharp tools, boards with nails up, rakes, etc.); trap doors left open; holes or excavations of any kind left uncovered or unlighted; rope or wire left in dangerous places; cellar or attic stairs not properly lighted, etc., cause most of these accidents. Many falls are occasioned by the slovenly and selfish habit of leaving someone else to clear away the confusion and littered condition you have yourself created. Myriads of small things, as the banana or orange peel on the sidewalk, a loose heel on the shoe, and icy steps with no ashes thrown on them, account for many falls.

Accidents on Railways

The next largest number occur on railways.

While the railroad management is held responsible, some individual employe is generally to blame. But outside of those injured while legitimately traveling on the railway or those injured in the employ of the railway, fourteen people are killed every day by trespassing. Keep off the track.

Do not use the railway track as a route of travel, even for a short distance, and do not use railway bridges no matter how long a detour you may have to make. Keep out of railroad yards. Do not board or leave a moving train nor crawl under lowered gates.

DROWNING

The next largest number of deaths from accidents yearly is from drowning. Naturally the answer is, learn to swim. Learning to swim should be compulsory and the ability to swim as universal as walking, for man is often helpless on and in the water if he does not know how to swim.

If you want to own a canoe, make up your mind to learn to swim first and to paddle afterwards. People usually reverse the order. No one should take out in a canoe anyone who cannot swim. Canoes may be upset by such trifles as a violent fit of laughter. Don't take chances with the weather, especially on the large lakes. Consult some old sailor or experienced shorehand if the water looks at all rough or the wind is high. It is the greenhorn who takes risks, especially with horses and boats, which are uncertain elements. An old sailor can always give you good advice. I saw two young men drowned within half an hour after laughing at the warning of an old sailor. I had intended to go out but saw that the wind was blowing strong off-shore and heard the old man advising those fellows, both of whom could swim and paddle. It became still rougher and the wind was so strong off-shore that they could not get back. In canoes or rowboats, people should absolutely never change seats.

On the lakes in rough weather, a motor boat that is too large to be handled with oars must be managed carefully, for if the engines go wrong in such a craft, you are more helpless than you are in a rowboat which by skill and strength you can, in ordinary seas, keep at right angles with the waves. Even if you ship some water in a rowboat, you are comparatively safe if you take the waves as nearly at right angles as possible, riding straight over them, not between them. If you once lie in the trough of the sea, you are in great danger, and that is what happens to the motor boat if it becomes helpless.

In swimming do not go out far unless you are in hailing distance of boats or other swimmers, for in our cold waters cramps are possible even to the best swimmers, who should always be escorted on long swims even when keeping comparatively near shore though, of course, in deep water. No one should be so foolhardy as to go in swimming from a shore with no one in sight. Unless you are a good swimmer, do not go into any water

until you know the character of the bottom. Avoid any place where there is an undertow. Learn to swim on your back and to float, as without this knowledge you are of very little use to yourself and others in any real emergency.

Fire

The next largest number of accidents is from fire—more than fifty per cent unnecessary. Even when it is caused by wiring it is often from careless work.

All closets, cupboards, attics, and the like, should be kept clean and free from litter.

Keep matches in a covered metal box. Be most careful how you dispose of a lighted match. Avoid taking ashes from stove or furnace until they are cold. Do not take a lighted match into a room in which you smell gas. When at any hotel, notice the location of fire escapes and stairs and which passages lead to them. Smoking should never be allowed in a stable or in a garage where gasoline is kept in large quantities.

If the house in which you are, or any person or thing in it, catches fire, close doors and windows promptly to exclude draft and smother the fire with rugs or bedding or garments, preferably of wool.

The practice of closing as many doors as possible at night, particularly the kitchen door, is a good precaution. Never leave any halls or passageways obstructed after dark.

Campfires must be entirely extinguished before leaving camp. Carelessness in this matter is a criminal offense, as some of our most disastrous forest fires are started in this way.

If your clothing catches fire, never run for assistance. If there is nothing at hand with which to wrap yourself to smother it, lie down and roll over slowly, beating and fighting the flames with your hands and arms. Do exactly the same to anyone else.

Do not jump from windows of burning buildings, unless it is the only means of escape. Within six inches of the floor there will be no smoke to speak of, so crawl along with your face as near the floor as possible. If you can wring your handkerchief in water and tie it over your mouth and nose you will find it an effective mask.

If you see a burning building, alarm the inmates and then ring the fire alarm. Outside a burning house borrow bedding, mattresses, and pillows from the neighborhood and place under windows at which people are seen. In case of fire, always think of others beside yourself in making your escape and do your share of warning or assisting.

Be careful not to spill gasoline in using it and never use it near fires or lamps, or in a closed room.

Gasoline also should never be stored except in approved receptacles. Burn up any oily rags as soon as you have used them, as spontaneous combustion is liable to take place.

Keep others from panic and do not lose your head.

Poisons

Poisons should never be kept with harmless things. Always put them in a special place, preferably under lock and key. Bottles should have some distinctive color or shape, that may be recognized by touch in the dark.

For poisons, take an emetic immediately, salt or mustard water being the most common available. An acid is an exception to this rule. Swallow in this case white of egg, flour and water, or milk in quantities to neutralize the acid. For an alkali, take lemon juice or vinegar.

There are myriad forms of menace to life everywhere which, if enumerated, would fill a volume. These are merely a few suggestions. Safety instructions and protection in industrial work form a separate subject by itself. What people are now organizing to accomplish is a universal training by which we may be quick, alert to see danger signals, and thus avoid danger. We must educate ourselves to be a protection to others as well as to ourselves. As a result of the present crusade accidents are beginning to show a decrease. The necessary persistent labor entailed has been against apathy—lack of appreciation and even ridicule.

We want first of all to rid ourselves of one of the besetting sins of our age—the habit of undue haste. This is a fertile cause of

many of the foolish things people do. In order to promote safety, we need to cultivate:

1. Observation.
2. Mental alertness—to form conclusions and act quickly.
3. Unselfishness—which constitutes us our brother's keeper.
4. The necessary knowledge of what to do in an emergency.

CHAPTER XX

AMERICAN CITIZENSHIP FOR BOYS

THE YOUTH AS A CITIZEN

The young men for whom this Program has been developed will be called upon during the next twenty years to take part in carrying on the business and government of the United States. There are boys taking this Program who will be heads of mercantile establishments, presidents of railroads, members of Congress—possibly a President, of the United States. The United States is pointing its finger at every one saying, "This means you!" The United States, therefore, has a right to insist that every citizen shall know what kind of a government he lives under, so that when occasion shall arise, he shall be ready to fight for a cause and country just as he would fight for his home and his family, and he shall know that the government of the United States is something which is worth living for, worth dying for, if need be.

The boys for whom this Program is meant have ceased to be children. They are in many cases at work, earning wages in stores and factories. They go to and fro on the streets. They ought to understand how it is that they are protected from thieves and robbers in their homes and on the public streets; that if they commit crimes or acts which are forbidden by the law, they will be punished by the law; that if they foolishly run into debt in buying things they do not need, the law will protect them; that if they have property left to them, the law will prevent them from wasting it; that the law will compel their employers to pay them for their work.

All of these things are matters of everyday life. We do not think there is anything strange or remarkable about it when the

policeman stops a fight or arrests a thief, or when a murderer is tried for his life and, if found guilty, is put to death, or when a fire department puts out a fire, or a board of health quarantines a house in which there are persons who are sick with contagious diseases. We see nothing unusual in having courts of justice for the trial of persons accused of crime and the arbitration of disputes about business and property, prisons and penitentiaries for the punishment of criminals, and almshouses for the care of poor persons. We think it quite natural to have armies and navies to protect our people against their enemies and suppress riots and rebellions. We are not at all astonished by the great system of public education which prevails almost everywhere in the United States. Yet these are only a few of the kinds of public business called government which we carry on as citizens of the United States.

We who are citizens of the United States have the right to live in the United States and be protected by its laws, and we are in duty bound to obey its laws, and, if called upon, to defend its government in time of war. We are citizens of the United States because we have either been born or naturalized in the United States and are subject to its laws.*

Citizenship

Every child born in the United States of American parents is a citizen of the United States. A person born abroad of American parents living abroad is a citizen of the United States. He will, however, lose his right of citizenship if he does not claim it legally when he is eighteen years old. A foreigner who comes to the United States may become a citizen of the United States by complying with the laws which provide that, after living here for a number of years, he shall renounce the government under which he was born and shall make oath in court that he will support the government of the United States. A foreigner who has become a citizen of the United States may lose his right of citizenship by going back to his old home and staying there more than two years without making legal claim to his American citizenship.

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* U. S. Constitution, 14th Amendment.

A child born in any other country of foreign parents who come here to live and are naturalized as citizens, becomes a citizen when its parents become citizens.

Indians who are born in the United States, are not citizens so long as they live in tribes.

Foreigners who come here and live without being naturalized are like visitors or guests in a home. They have no right to stay in the United States under the protection of its laws unless our Government is willing.

Law in the United States

The laws of the United States by which we as citizens have a right to be protected are constitutions, which establish governments and direct the way in which they shall be carried on, and statutes, which really are rules of behavior that require us to do what is right and forbid what is wrong.

The Constitution of the United States is a collection of rules for carrying on the government of the United States. It was prepared in 1787 by a convention of delegates from twelve of the original thirteen states of our Union. It was afterwards accepted by all of those states and has been accepted by the states which since then have been added to the United States.

The Constitution begins with a preamble, which says, "We, the People of the United States, in order to form a more perfect Union, . . . do ordain and establish this Constitution for the United States of America." The Constitution of the United States, therefore, was made by the people of the United States, and is the people's law of the United States. Each of the states of which the United States is composed has a constitution, which is the people's law of that state.

The Constitution of the United States declares that the laws of the United States shall be made by a legislature called a Congress, shall be enforced by an executive officer called the President of the United States, and shall be interpreted or explained when their meaning is in doubt by the Supreme Court of the United States. In like manner, the Constitution of each state declares that the laws of that state shall be made by its Legislature, shall be enforced by its Governor, and shall be interpreted or explained by its courts of justice.

Government in the United States

The government which is established by the Constitution of the United States is really a body of public officers who make and enforce and judge laws, representatives in Congress, senators in Congress, the President of the United States, his secretaries or assistants, subordinate public officers, and judges and officers of the United States Courts.

The government which is established by the Constitution of each of our states is a body of public officers, representatives in legislatures, senators in legislatures, governors and other public executive officers, and judges of state courts.

The Legislature of each state establishes smaller governmental districts within that state. These are counties, cities, towns, and villages.

A county is a district within a state, which has been established for the purpose of maintaining courts in which business disputes are arbitrated and criminal cases are tried, jails in which criminals are confined, and almshouses in which poor people are cared for. A city is a thickly populated district within a state, the inhabitants of which maintain streets, sewers, fire departments, water departments, and other appliances which promote the health, welfare, and safety of the large number of people who live near one another in smal sub-divisions of a state. A town is a small district whose people unite n maintaining streets, sidewalks, roads, almshouses, waterworks, sewers, and other appliances which promote the health and comfort of the people who live within its borders. A village is a district which may be wholly within a town or may extend over many towns, the inhabitants of which maintain sidewalks, fire departments, and some other appliances which they are willing to pay for, but which they could not fairly ask the people of the towns of which they are a part to provide.

How Governments Protect Citizens of the United States

Let us see what happens to a young man in one day of his life—the things which are so common that no one thinks there is anything remarkable about them.

The young man after a night's rest in his home has his breakfast and starts either for his school or college or for the place

where he is employed. He does not stop to think that the policeman who patrols the streets has prevented burglars from breaking into his home while he was asleep and stealing the property which belongs to his family.

At his breakfast he has sugar, salt, pepper, and different articles of food, nearly all of which were purchased by his family at the grocery store and the butcher shop. The articles which the grocer and the butcher have on hand were purchased by them from manufacturers, keepers of wholesale stores, and merchants who sell articles which are brought to the United States from all parts of the world. Those stores could not be kept open if they were not protected from thieves by policemen, who are officers of the government of the city, town, or village in which the stores are located. The wholesale dealer would not be able to keep in stock the articles which he supplies to the grocer or the butcher, if the railroads and steamboats which carry the articles he buys and those he sells were not protected by our state and national government. The person who sells articles which are brought to the United States from distant countries could not carry on his business if the government of the United States did not have a navy to protect merchant ships, that bring to the United States commodities which are not produced here and carry to other countries commodities which the people of the United States wish to sell.

The young man would not even have a home in which he would be sheltered, where he would have his meals and his bed, if it were not for the government of the state, which protects the man who owns or hires a house from being turned out of it by persons to whom it does not belong and who have no right to it.

The young man who has eaten his breakfast goes out on the street. On his way to his work the first man he sees possibly is the letter-carrier, who is an officer of the government of the United States. That letter-carrier is doing the work of the President of the United States. He has been appointed, directly or indirectly, by one of the President's assistants, the Postmaster General, who holds his office because he was selected for it by the President of the United States. The President of the United States has power to carry on the business of the Post Office

Department, because a law of Congress has given him that authority. The President of the United States has been elected and holds office under the authority of the Constitution of the United States, which established the government of the United States.

The laws which gave the President authority to appoint a Postmaster General and the laws which give the Postmaster General authority to carry on the business of the Post Office, were made by the Congress of the United States. The Congress of the United States exists under an authority given to it by the Constitution of the United States.

Public Officers

The young man who has thus been protected in his home and on the streets by officers of different governments, as he goes farther, sees something more than the policeman and the letter-carrier. For example, he walks on a sidewalk along the public street. The street have been paved, the sidewalk has been built, the sewers under the streets have been constructed and are maintained by the village, town, or city in which he lives. He is one of the citizens of that place and is called upon, in proportion to his means, to pay for these public appliances. The young citizen does not himself always pay any part of the cost of streets and sidewalks. His parents, if they have means, contribute in the form of taxes their share of the cost.

Public Property

We see everywhere about us public streets and sidewalks, sewerage systems, fire departments, public schools, public parks and playgrounds, art museums, museums of natural history, the policing of streets—all of which enable people to live together in one place in safety, to have good health, to improve morally, and to lead happy lives. All these things belong to all of the people. The young man is just as much a proprietor of all these good things as any other person. We often hear people speak of roads and schools and other things of that kind, and say, "It is as much mine as it is yours," and they say rightly, because the property which belongs to the public belongs to each one.

Public Utilities

We see in cities and in many towns street cars going to and fro, hydrants, gas street lamps, electric street lamps, gas houses, electric lights and power plants, reservoirs for water supply, and other appliances which any one has the right to use by paying his proportion of the cost. We call these useful things public utilities. They are owned, as a rule, by corporations or associations composed of private persons. They are not and ought not to be wholly managed and controlled by these private persons who own them. In the first place, they obtain from the governments of the places in which they do business a right to use the streets for laying gas and water mains, for street-car tracks, for poles and conduits to carry electric wires, and similar purposes. All the money they get comes from the public, who use these appliances and pay for such use. Inasmuch as they exist by the consent of the public, and have certain rights to use public property, such as streets, which are called public franchises and are given them by the people, and inasmuch as they obtain their income by carrying on their business in places owned by the public, it is only right that they should be controlled by the governments which give them the right thus to do business. Hence, one of the things which our young men learn is that public utilities are businesses which are owned by private individuals, but are carried on under rules and regulations prescribed by governments. They realize, then, that some kinds of business enterprises which are privately owned and operated are controlled by government. Street-car fares, for instance, usually may not exceed five cents, and the price of water and gas supplied to persons living in private houses is fixed by the governments of the places where they do business.

In a larger way we see many businesses of the same kind that are owned and managed by individuals which, for the same reason, are under the supervision and control of governments. For example, steam railroads going from place to place within a state are managed by officers chosen by the persons who own the stocks of such corporations. The work which these officers do, however, is controlled in a large degree by public officers who have authority given them by state laws.

In a larger and in a broader sense railroads which go from one state to another are owned by private individuals, and are managed by officers chosen by those private individuals, but are controlled by the government of the United States.

Public Buildings

We see in every county important public utilities, such as courthouses, jails, hospitals, and almshouses. The people who live in the cities and towns which are within the borders of a county pay the expense of maintaining these public utilities, in order to provide for the trial of persons who are charged with having committed crime, for arbitrating disputes about business and property, for the punishment of persons who are convicted of crime, for the support of the poor, and for taking care of sick people.

Large cities, such as New York, Philadelphia, Chicago, Boston, and San Francisco, comprise either the whole of a county or more than one county. The government of a county in such cases really is almost the same as, or is a part of, the government of the city. Courthouses, jails, almshouses, and other institutions of the kind, are maintained and managed by county governments, which exist within cities or operate side by side with city governments. Nevertheless, these county governments are entirely distinct from the governments of the cities in which they are situated.

Outside of great cities, counties usually are associations of cities and towns for the purpose of providing conveniently for the carrying on of the various sorts of public business for which counties exist.

In the capital city of each state we see a capitol building and other buildings used for state purposes. In various parts of a state we see penitentiaries, state hospitals, state insane asylums, state almshouses, and other similar institutions. In many states there are roads covering long distances, which have been constructed and are maintained by the state. All of these things are appliances for supplying the needs of all the people of the state and especially of certain people who, for one reason or another, cannot be taken care of by the county governments.

We know that towns, cities, counties and states have boards of health, whose duty it is to prevent the spreading of contagious

diseases. Each of our states has laws which enable the people of the state, counties, cities, and towns to quarantine persons suffering with smallpox and other contagious maladies. When we go from place to place in the state and see the state buildings, county buildings, city buildings, town buildings, village building, we see the places in which the public officers composing the government do the work of providing for the safety, prosperity, health, morality, and happiness of the people.

In every village, town, and city of the United States we find post offices, which are owned and operated by the government of the United States. Every large city has a United States custom house, where taxes are imposed upon articles of merchandise which are brought here from foreign countries.

In the city of Washington there are huge buildings in which the officers of the United States carry on the public business of the United States, which we call our national government. These public officers regulate and control all matters in which the people of all the United States are interested. For example, all the people of the United States have an interest in the regulation of our commerce at home and abroad, so that very rich persons and corporations shall not be able to compel the people to pay exorbitant prices for what they have to eat, drink, and wear. All of the people of the United States have an interest in the maintenance of a sufficient army and navy so that in time of war we shall not be afraid of our enemies.

This public business, which is carried on in a smaller way by villages, towns, cities, and counties, and in a larger way by the states of the United States and by the United States, costs money. That money has to be raised by imposing taxes upon the people. Therefore, the governments of our villages, towns, cities, and counties of the states and of the United States have power to make laws which compel people who have money to pay their just share of the expense of carrying on the public business in which we all have the same interest.

Purposes of Governments

Our young men, who thus see that much is done for them, and that much must be done by them and by their public officers in order to make the public business of government successful,

should realize that these governments have power to compel each person living in the United States to do certain things which he ought to do and to refrain from doing certain things which he ought not to do. Our governments have been established by the people for certain definite purposes. Those purposes are to provide for the safety of the people, by means of armies and navies, courts, penitentiaries, jails, lock-ups, and other appliances which prevent nations or individuals from injuring others. These governments have power to punish persons who commit crimes and who prevent others from being safe, comfortable, good, and happy. Therefore, each of our governments has to have power, not only to get money to pay its expenses, but also to inflict punishment. The power which the government has to inflict punishment is only such power as is needed to prevent wrongdoers from injuring others. In other words, so long as a person does right in the United States and pays his share of the expense of carrying on our governments, he is not governed at all. He gets the advantages of the public services which governments render to the people, but is not himself governed, except that, if he interferes with the safety, prosperity, morality, comfort, and happiness of the people, he will be deprived of the whole or some portion of his own safety, prosperity, comfort, and happiness.

Rights of Citizens

The citizen of the United States thus governs himself and is not governed by anybody, except in so far as the laws made and enforced by his government prevent him from injuring others.

When our ancestors established our State and National governments, they had it in mind that each individual citizen ought to have certain rights which the governments they were to establish should not have power to violate. These rights were stated very carefully in the Declaration of Independence as rights of life, liberty, and the pursuit of happiness.

These rights of life, liberty, and the pursuit of happiness may be further subdivided as natural rights, civil rights, and political rights.

Natural Rights

A natural right is a right which a person has because he is a free man.

The citizen has a right to live. No government has a right to take away his life, unless he does something which will prevent another person from living. If he commits a murder, he prevents another person from living, and so forfeits his own right to live.

The citizen has a right to his liberty. He has a right to speak his mind on any topic, to believe what he pleases, and to worship God in the way he thinks best. If a man uses his right to say what he pleases by making speeches in public places that will start riots, whereby life and property will be endangered, he forfeits his right to free speech, because he has so used it as to prevent others from being able to say what they please. If a man claims that his right to worship God in his own way extends to the exercise of a religion which permits a man to have more than one wife, he misuses his right of religious worship by committing a crime, and he will be punished for it. A man has a right to earn his living by any occupation which he likes best, but he cannot so use this right as to prevent others from gaining their livelihood by occupations which they like best. For example, if a man's occupation be burglary, counterfeiting money, or picking pockets, he would by following it prevent others from earning their livelihoods in the right way. Such are the most important natural rights of the citizen of the United States.

Civil Rights

The civil rights of a citizen of the United States are rights which a citizen holds wholly by law. They are rights which are given to him by the laws of the state in which he lives and of the United States. For example, he has the right to have the benefit of the writ of *habeas corpus*. This is a proceeding by which a person who is confined to a prison or asylum may be brought into court and have decided the question whether his confinement is or is not legal; so that, if some person should attempt to put a man in jail without a trial and keep him locked up, the man could by means of the writ of *habeas corpus* compel the person who locked him up to bring him into court and have the judge decide whether he really ought to be imprisoned or not.

A citizen has the right to a trial by jury. All important crimes in all of our states must be tried by a jury composed of citizens. Our people believe that a trial by jury is the best way

of determining whether a person has or has not been guilty of a crime, and for arbitrating disputes about business and property.

It is the right of a citizen that he shall not be deprived of life, liberty, or property without due process of law. A tax cannot be imposed upon a citizen unless a legislature has made a law authorizing public officers to impose it. A tax cannot be collected from a person except in the way and manner which the law provides. For example, the amount of the tax which must be paid for the maintenance of a state government is determined by an act of legislature, which fixes the proportion to be paid by each county within the state. Each of the counties within the state then either fixes by an assessment the sum to be paid by each property owner in the county, or decides what proportion of the county's share shall be paid by each city and town in the county. The cities and towns of the county then, by means of their boards of assessors, declare the amount which each individual who owns property shall pay towards this expense. Taxes to support county governments are assessed either upon individuals within the county or upon cities and towns. Cities and towns in their turn have boards of assessors, which declare the sums that individuals must pay towards the support of the town and city governments and towards the proportion due for the support of county and state governments.

A person cannot be deprived of his liberty except by due process of law. This means that a person who is accused of crime has a right to his liberty until some person has made an oath before a magistrate charging him with the commission of crime. The person so charged is then arrested on a warrant and taken before a magistrate, who decides whether there is enough evidence against him to make it right that he should be tried by a court. If the crime be serious, that evidence is presented to a grand jury, composed of twenty-three citizens, to hear the evidence and decide whether the person charged with crime should be tried by a court. If a grand jury decides that there is enough evidence to justify his being tried, they make an indictment, which is a formal charge made in writing against a person that he has committed a crime. Upon this indictment, the person charged with crime is brought into court and tried by a jury of twelve men, who determine whether he is guilty or innocent.

If they find that he is guilty, a judge, usually the one who presides at the trial, will declare the penalty which the law has established for the crime of which the man has been convicted. He is then delivered over to public officers, who represent the executive department of the government, and by them he is taken to a prison where he suffers the penalty described in the judge's sentence. Such is due process of law in a criminal case.

Due process of law in a civil case is somewhat similar. If one person, called the plaintiff, claims that money is due him from another, or that another person has property which belongs to him, he makes a statement in the form of a complaint or declaration, in which he describes his claim and asks that the person against whom he makes the claim be obliged to come into court and answer. The person against whom the claim is made, usually called the defendant, makes "an answer" to the charge against him. The question to be tried in a civil case is that which is raised by a complaint and an answer, and is called an "issue." This issue is tried before a jury, which decides whether there is money due to the plaintiff or not. If the jury decides that there is money due to the plaintiff, it gives a verdict to that effect. This verdict is then by an order of the Court accepted as final. It is then called a judgment. Upon this judgment the Court authorizes an "execution" to be issued. This execution is an order to the sheriff of the county, who represents the executive department of the government, directing him to take property of the defendant and sell it so as to satisfy the judgment.

Political Rights

Certain classes of our citizens have political rights—that is to say, they have the right to take part in carrying on our government by voting at elections and by holding public office when chosen or appointed.

In all of our states, male persons over the age of twenty-one years have the right to vote and to hold office. We do not give the right to vote to persons under the age of twenty-one years, because, according to law, they have to be specially protected in their rights. It would not be wise to give to persons who cannot be trusted to take care of themselves or their property, the right to decide by voting at elections how other persons should take

care of themselves and their property. The Constitution of the United States does not confer upon any person the right to vote. It only says that the right of a citizen of the United States to vote shall not be denied or abridged by the United States or by any state on account of race, color, or previous condition of servitude.* This declaration was made after the Civil War, in order to protect the colored people from being deprived of the right to vote. Each of our states has special regulations prescribing the way and the manner in which elections shall be conducted. In the sparsely populated farming states of the West, where most of the people of a county know one another personally, an election is conducted very simply. The citizens who have the right to vote meet in particular places and cast printed ballots for the candidates they prefer. These ballots are then counted and the result recorded in such a way that the persons who have been successful shall obtain the right to take over their offices. In the more densely populated states there are provisions for the enrolment of voters as members of parties, and for the choice of candidates for office by primary meetings for the registration of voters, so that the names of all persons who have the right to vote shall be listed before election and for voting at elections upon ballots, upon which the citizen places crosses against the names of those whom he favors.

Duties of Citizens

Our young citizens must understand that while the law gives them important rights which are necessary for their safety, prosperity, and happiness, it also imposes duties which they must not fail to perform. The citizen, who has a natural right to life, must live decently, honorably, and honestly. Men live together in communities because many persons living in one place are able more easily to defend themselves against their enemies, to join in making things which a man cannot easily make alone, to avoid sickness, and to improve morally. Any member of a community who is indecent, or dishonorable, or dishonest, interferes with the happiness, comfort, and prosperity of other persons. For that reason, the man who lives in such a way as to interfere with the

* U. S. Constitution, 15th Amendment.

prosperity and happiness of all the members of a community is punished by the law.

Natural Duties

The citizen who has a natural right or liberty to do, to say, and to believe what he pleases is under a corresponding duty to use that right in such a way as to promote the safety, prosperity, health, and welfare of all persons who live in the same community. It is his duty, for example, to keep the sidewalk in front of his house free from rubbish in summer and from snow in winter; to maintain cleanliness in his home; to refrain from placing disease-breeding filth on the streets; to give his support as a citizen and as a man to projects for the health of the people, such as parks and playgrounds, schools, museums, the enforcement of laws which require the vaccination of all persons in order to prevent the spread of smallpox, the prevention of gambling, liquor selling, and other immoral occupations; to assist public officers in arresting criminals and in the enforcement of the law when called upon; to attend religious services regularly; and, generally, to set a good example to other members of the community.

It is the duty of the citizen so to use his right to earn his living by the occupation he likes best as to promote the safety, prosperity, morality, and welfare of others.

Every citizen ought to do some useful work. The earth supplies the things which are needed for food, clothes, and shelter. Men have to work in order to make these things useful. Natural food, like nuts and fruits, must be gathered. Trees are not useful until cut down and split into firewood or sawed into boards. Land cannot be used to raise vegetables and grain until it has been plowed and planted. Ores containing copper, iron, tin, zinc, and other metals are not useful until mined and smelted. In fine, all the good things which men have to have in order to keep alive are obtained by work. We have to keep on working in order to keep on living. The fields must be planted and reaped every year in order to keep up the supply of food. Clothes wear out, houses decay, metals rust. Farming land loses its fertility. The fields and pastures, if neglected, become wild land It is said that if all of us were to stop working even for a few days, hundreds of thousands would die of want and starvation.

The busy man enjoys his life. The man who has nothing to do is unhappy. The busy man has good health, because his mind and his body are active. The idle man is weak and sickly, because he has nothing to do. The busy man earns good food, good clothes, and can maintain a good home. The idle man is hungry, cold, and often homeless. The busy man is honest. The idle man almost always is a lawbreaker. Our laws punish loafers, tramps, vagrants, and beggars, because idleness often leads to misery and crime.

The citizen must behave himself in such a way as to have good health. Disease is a burden to the sufferer and to others. The sick man cannot earn his own living or support his family. His sickness may be a contagious disease that will infect others who live near him. Much sickness can be avoided by good habits. We ought to eat simple food. We ought to take good care of our teeth, because good teeth are necessary for good digestion. We ought to keep our bodies clean, because dirt clogs the pores of the skin through which unhealthy waste matter escapes from the body. We ought to keep our bodies warm and dry, because exposure lessens our power to resist disease. We must exercise our bodies, because the active body is the healthy body. We ought to have regular habits of sleep. We ought to breathe fresh air night and day, because many diseases are caused by foul air. The citizen ought to use his natural right to do anything that does not injure others by obtaining a good practical and theoretical education.

He should study the occupation in which he is engaged. On the farm, he should learn the best methods of cultivating the soil. In the factory or store, he should gain an education in the art of making and exchanging things. At the same time he should attend public lectures, read in the public libraries, go to art museums, and attend night schools. By so doing he gets an education while earning a living. If also he attends concerts and operas, he may cultivate a taste for good music.

The good citizen ought to take advantage of all opportunities to obtain the theoretical education which is given in schools and colleges. We have kindergartens, public schools, high schools, vocational schools, normal schools, state colleges, and universities at which instruction is absolutely free. Our young men

ought to take advantage of the opportunities for education, so that they may be able to reason correctly and to understand the life of the world which is going on around them. They can do this for nothing, and, unless under unusual circumstances, they are not good citizens if they do not get much of the education which is given for nothing.

The good citizen ought to give his support openly and strenuously to the work of the officers of the government. If citizens do not range themselves on the side of law and order, the community in which they live cannot be successful. The citizen ought not to criticize or censure the work of the President of the United States, the Governor of the state, the judges of courts or the officers of the state, city, town, or village in which he lives, unless he has the gravest reason to believe that such censure is not only justified but is necessary, in order to prevent wrongdoing by public officers. This is particularly true of the right which each person has to the absolute possession of life, liberty, and property unless deprived of those things by due process of law. The citizen ought to serve on a jury when called upon to do so, although it may interfere with his business. He ought not to stand by and see crime committed without exercising his right as a citizen to interfere. If unjustly accused of crime or if persecuted by the powerful, he ought to insist upon his rights and obtain justice through the courts. The citizen ought to know how his government is carried on, because otherwise he cannot vote wisely at elections. He ought to know how to earn a good living, so that he and his family may be useful members of the community and not burdens upon others.

The citizen ought to use his right to worship God in the way that suits him best and in such a way as to improve his moral character. Morality of the highest type is one of the chief aims of religious teaching. Religious liberty makes a man seek the religious teachers who will help him form a good moral character, which is the sum total of good habits. The good citizen always is a moral citizen.

Civil Duties

The citizen is under a bounden duty to insist upon having his own civil rights and to help those whose civil rights have been vio-

lated to obtain justice. He ought, for example, to range himself on the side of the law, if the rich and powerful seek to oppress the poor and weak. The inmate of an insane asylum who insists that he is of sound mind ought to have a chance to be brought into a court, where he can prove that he is sane or by wild words will show that he is crazy. The right to writ of *habeas corpus* ought not to be denied even to a man who only thinks he is sane.

The good citizen is willing to serve on a jury when called upon. Sometimes it is inconvenient to leave one's business for days or weeks on end, in order to help others adjust disputes. Nevertheless the one way disputes can be adjusted is by a jury trial, and every one ought to do for others what he may wish to have done for himself.

Every citizen should insist upon his right to life, liberty, and property, unless deprived by due process of law. Ours is "a government of laws, not of men." If a public officer, however high-placed, arrests a person charged with crime without a warrant or other due process, and holds that person in a prison without an order from a magistrate, he injures not only the person deprived of liberty, but also every other person in the community. For if one person can be deprived of his rights unlawfully, any other person may be made to suffer in the same way.

Political Duties

The citizen is equally in duty bound to use his political rights by taking part in the government of the community and by holding public office when elected or appointed. The citizen voter, who does not go to the primary meetings of the political party to which he belongs, is to blame if political crooks choose candidates of bad character. The citizen voter who plays golf or goes joy riding on election day and neglects to go to the polls and cast his vote ought to be held responsible when, by his failure to vote, incompetent or dishonest public officers are elected. The citizen who is qualified by law to hold public office and refuses to be a candidate or to serve when elected, because he can make more money at his private business or for any other reason does not wish to serve the public, is doing wrong; he clears the way for office seekers who care nothing for the public welfare and everything for their private interests. The citizen who does not wish

to be a public officer is to blame for much that is wrong in our government.

We are members of a great "democracy," which has a "republican form of government" guaranteed to our states by the Constitution of the United States. The "democracy" for which the world must be made safe, as President Wilson has said, and the "republican form of government"* provided for by the people's law of the United States are one and the same thing. "The distinguishing feature of that form " according to a decision of the Supreme Court of the United States, "is the right of the people to choose their own officers for governmental administration, and pass their own laws in virtue of the legislative power reposed in their representative bodies, whose legitimate acts may be said to be the acts of the people themselves."†

That is why we say that the young citizen of the present ought to understand the government under which he lives, by which he is protected.

THE AMERICAN'S CREED

I believe in the United States of America as a government of the people, by the people, for the people, whose just powers are derived from the consent of the governed; a democracy in a republic; a sovereign Nation of many sovereign States; a perfect Union, one and inseparable, established upon those principles of freedom, equality, justice, and humanity for which American patriots sacrificed their lives and fortunes.

I therefore believe it is my duty to my country to love it; to support its Constitution; to obey its laws; to respect its flag; and to defend it against all enemies.

THE AMERICAN FLAG

"A star for every state and a state for every star."

The History of the American Flag

The flag of one's country is its dearest possession—an emblem of home and country and native land. This is what one thinks and feels when he sees the flag, and this is what it means. Our flag is the emblem of liberty, the emblem of hope, the emblem of peace and good will toward men.

* U. S. Constitution, Art. IV, Sec. 4.
† *In re Duncan*, 139 U. S. Rep. 449, 461.

There is a story, quite generally believed, that the first flag was planned and made in 1776 by Betsy Ross, who kept an upholstery shop on Arch Street, Philadelphia, and that this, a year later, was adopted by Congress. The special committee appointed to design a national flag consisted of George Washington, Robert Morris, and Colonel George Ross, uncle of the late husband of Betsy Ross. The star that the committee decided upon had six points, but Mrs. Ross advised the five-pointed star, which has ever since been used in the United States flag. The flag thus designed was colored by a local artist, and from this colored copy Betsy Ross made the first American flag.

When Washington was in command at Cambridge, in January, 1776, the flag used by him consisted of a banner of thirteen red and white stripes with the British Union Jack in the upper left-hand corner.

The Betsy Ross house has been purchased by the American Flag House and Betsy Ross Memorial Association, and is pointed out as one of the interesting historical places in Philadelphia.

The official history of our flag begins on June 14, 1777, when the American Congress adopted the following resolution proposed by John Adams:

Resolved: That the flag of the thirteen United States be thirteen stripes, alternate red and white; that the Union be thirteen stars, white on a blue field, representing a new constellation.

"We take," said Washington, "the star from Heaven, the red from our mother country, separating it by white stripes, thus showing that we have separated from her, and the white stripes shall go down to posterity representing liberty."

Flag Day

June 14th, the anniversary of the adoption of the flag, is celebrated as Flag Day in many of our states.

In order to show proper respect for the flag, the following rules should be observed:

It should not be hoisted before sunrise nor allowed to remain up after sunset.

At "retreat," sunset, civilian spectators should stand at attention and on the last four strains of the music uncover, holding the headdress top outward, in the right hand, opposite the left shoulder, right forearm against the breast.

When the national colors are passing on parade or review, the spectators should, if walking, halt, and if sitting, rise and stand at attention and uncover.

When the flag is flown at half staff as a sign of mourning, it should be hoisted to full staff at the conclusion of the funeral. In placing the flag at half mast, it should first be hoisted to the top of the staff and then lowered to position, and preliminary to lowering from half staff it should first be raised to top.

On Memorial Day, May 30th, the flag should fly at half mast from sunrise until noon, and full staff from noon to sunset.*

By Act of Congress in 1794, it was determined that the number of both stripes and stars should be fifteen, with the expectation that a new stripe and a new star should be added whenever a new state joined the union. This Act continued in force for twenty-three years, at which time Congress permanently reduced the number of stripes to thirteen, with the provision that on the admission of every new state into the union, one star should be added to the union of the flag. This is still in force, and today there are forty-eight stars in the flag.

Salute to the Flag

"I pledge allegiance to my flag and to the republic for which it stands; one nation indivisible, with liberty and justice for all."

"America, so proud and free,
I give my song, my heart to thee.
Still let thy heav'n-born symbol fly
In ev'ry clime, 'neath every sky;
Still rise a yeoman race, to stand
For God, and home, and native land."

SONGS OF OUR COUNTRY

"America"

The words of "America" were written by Samuel Francis Smith, D.D., while he was a student at Andover Academy (Massachusetts) in the winter of 1831–32. It was first used at a

* Taken from the "Sons of the Revolution," state of New York.

Sunday school celebration in Boston on the Fourth of July. Wherever Americans find themselves, in any part of the globe, its strains find an immediate response in every heart. The tune is that of the English "God Save the King."

My Country, 'tis of thee,
Sweet land of liberty,
    Of thee I sing;
Land where my fathers died,
Land of the pilgrim's pride,
From every mountain side
    Let freedom ring.

My native country, thee,
Land of the noble free,—
    Thy name I love;
I love thy rocks and rills,
Thy woods and templed hills;
My heart with rapture thrills
    Like that above.

Let music swell the breeze,
And ring from all the trees
    Sweet Freedom's song;
Let mortal tongues awake,
Let all that breathe partake,
Let rocks their silence break,—
    The sound prolong.

Our fathers' God! to Thee,
Author of liberty,
    To Thee we sing;
Long may our land be bright
With Freedom's holy light;
Protect us by Thy might,
    Great God, our King.

"The Battle Hymn of the Republic"

The author of this inspiring song was Julia Ward Howe. During a visit to Washington in 1862 she was much impressed with the military appearance of the city. She awoke one night, and immediately the lines suggested themselves to her. She arose at once and with almost no hesitation wrote out the entire poem. The tune is that of "John Brown's Body."

Mine eyes have seen the glory of the coming of the Lord;
He is trampling out the vintage where the grapes of wrath are stored;
He hath loosed the fateful lightning of His terrible swift sword;
His truth is marching on.

CHORUS

Glory! glory! Hallelujah! Glory! glory! Hallelujah!
Glory! glory! Hallelujah! His truth is marching on.

I have seen Him in the watch-fires of a hundred circling camps;
They have builded Him an altar in the evening dews and damps;
I can read His righteous sentence by the dim and flaring lamps;
His day is marching on.

He has sounded forth the trumpet that shall never call retreat;
He is sifting out the hearts of men before His judgment seat;
Oh, be swift, my soul, to answer Him! be jubilant, my feet!
Our God is marching on.

I have read a fiery gospel, writ in burnished rows of steel;
"As ye deal with my contemners, so with you my grace shall deal;
Let the hero, born of woman, crush the serpent with his heel,
Since God is marching on."

In the beauty of the lilies, Christ was born across the sea,
With a glory in His bosom that transfigures you and me;
As He died to make men holy, let us die to make men free,
While God is marching on.

"The Star-Spangled Banner"

No patriotic song thrills Americans as does "The Star-Spangled Banner." The knowledge of how it came to be written makes it doubly inspiring. It came about in this way:

In the War of 1812, British warships attacked one of the defenses of Baltimore known as Fort McHenry. Francis Scott Key, a native of Maryland, was detained as a temporary prisoner on board the flag-ship of the English Admiral, while attempting to secure the release of a friend held as prisoner. All night Key watched the battle. Firing ceased before dawn, but he had no means of telling whether the British had taken the fort until the sun rose; then, to his joy, he saw that "Old Glory" still floated in the breeze over the fort—which meant that the British had failed. Key, in his delight, used the back of a letter he had in his pocket on which to write the poem. It appeared a week later

in a Baltimore paper under the title of "The Defense of Fort McHenry," but this was later changed to "The Star-Spangled Banner."

Though never formally adopted by Congress as a national anthem, it is given first place among our patriotic songs. Both the Army and Navy use it at the flag-lowering exercise at sunset. It is also used on all state occasions at home and abroad, in theaters, and public meetings of every kind. At such times all people rise and remain standing to the end as a tribute to their country's flag.

Oh say, can you see, by the dawn's early light,
What so proudly we hailed at the twilight's last gleaming?
Whose broad stripes and bright stars, through the perilous fight
O'er the ramparts we watched, were so gallantly streaming!
And the rockets' red glare, the bombs bursting in air,
Gave proof through the night that our flag was still there:
Oh say, does that star-spangled banner yet wave
O'er the land of the free and the home of the brave?

On the shore, dimly seen through the mists of the deep,
Where the foe's haughty host in dread silence reposes,
What is that which the breeze, o'er the towering steep,
As it fitfully blows, now conceals, now discloses?
Now it catches the gleam of the morning's first beam,
In full glory reflected, now shines on the stream:
'Tis the star-spangled banner! O, long may it wave
O'er the land of the free and the home of the brave!

And where is that band who so vauntingly swore
That the havoc of war and the battle's confusion
A home and a country should leave us no more?
Their blood has washed out their foul footsteps' pollution.
No refuge could save the hireling and slave
From the terror of flight, or the gloom of the grave:
And the star-spangled banner in triumph doth wave
O'er the land of the free and the home of the brave!

Oh! thus be it ever, when freemen shall stand
Between their loved homes and the war's desolation!
Blest with vic'try and peace, may the heaven-rescued band
Praise the Power that hath made and preserved us a nation.
Then conquer we must, for our cause it is just,
And this be our motto: "In God is our trust."
And the star-spangled banner in triumph shall wave
O'er the land of the free and the home of the brave!

CHAPTER XXI

GROUP AND MASS GAMES

Edited by Geo. O. Draper*
Training Secretary, Physical Bureau,
National War Work Council

Section 1. Mass Games
Section 2. Relay Races
Section 3. Stunts

Play is the one thing for which the boy finds continuous and insatiable appetite. He had rather play than eat, and any activity which interferes with his play is absolutely unpopular. Boys should rejoice in the fact that folks are beginning to recognize in play vital and necessary elements of growth—physical, mental, and social. What used to concern the parents and be a source of continuous worry and annoyance is now recognized as not only very desirable but essential.

Is there a boy who does not enjoy matching his skill and endurance through play with that of his companion? The country boys gather behind the barn when opportunity offers and play "Duck on the Rock," "Run, Sheep, Run," or some other old familiar game. The city boys when getting together in their parks and streets, play "Tops," Red Rover," or some other jolly

* *Acknowledgment.* This compilation of games has been carefully selected from material used and contributed by Y. M. C. A. Physical Directors, Army Recreational Directors, Public School, College, and Playground Directors, whose generous cooperation has made possible this collection.

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good game. It is an unfortunate boy indeed who does not have the opportunity to express himself through play. It is an abnormal boy who does not desire to play. There are many games, good and bad. Some are popular in some sections of the country, some in others. It is the object of this chapter on games to make available for all sections of the country good games of proven worth. All of these games have been tried and have proved worth while. They have given hours of pleasure to boys.

They require no special equipment. They are available to everybody under almost any kind of circumstances. They are so simple that they can be led by any novice, and they contain those elements of happiness necessary to successful play.

The tendency in the present is age toward specialization. This specialization has led our life into the realms of professionalism, and denied play to the novice.

Another element accompanying play which flies the danger flag, and probably more than any other thing has prejudiced the minds of many people against it, is commercialism. Commercialism also fosters specialization, and the tendency towards it must be discouraged. People should play for the love they have for play and not for any remuneration, whether it be money, clothing, or costly prizes. Prizes tend to create specialization and to eliminate the less skilled. The backward boy, or the boy who is classed as non-athletic, can be taught to enjoy play by the use of these simple play games.

"Play develops sportsmanship, courage, self-control, ability for true and quick decisions, and many other qualities that stamp a boy as a trained, well-organized individual." The boy who can play the game fairly, keep his temper, and use judgment is developing qualities fundamental to his life. One who loses his head (to use a slang expression) in the game, is at the mercy of his opponent as well as is the individual who loses his head in business.

The boy who plays fairly, even though his opponent be using unfair methods, wins admiration, develops self-control, self-confidence, and fairness—qualities which will immediately find a place for him in the world of affairs. Winning is incidental—character-building is of supreme importance.

I. MASS GAMES

A. CIRCLE GAMES

Lock Arm Tag (1)

Players are arranged in pairs in a circle. The players in each pair lock inside arms and place the outside arm on hips. There should be a distance of at least three feet between each pair. Two players are selected. One is "it" and chases the other. The player being chased can link arms with either man in any pair in the circle. This makes three men. The man who has an opposite arm is then subject to being tagged by "it." Players are allowed to run through or around the circle in either direction. A man upon being tagged can immediately tag back, but as soon as he has linked arms with any one of the players in any pair within the circle, he is not subject to being tagged.

Lock Arm Tag

Three Deep Tag (2)

Players are arranged in pairs as in the previous game with the exception that the pairs are arranged with one player standing in front of the other. The game proceeds as in No. 1, but instead of linking arms, the man being chased steps in front of one of the pairs of players which makes that group three deep. The back man in that group is the man then chased by "it."

Three Deep Tag

Broncho Tag (3)

Players are arranged the same as in three deep. The last man in the pair grasps the man standing in front of him about the waist and by twisting him about tries to prevent the man being chased from getting in front of him. The front man tries to catch and hold the man chased. If the man succeeds then the third man in the group is subject to being tagged as in three deep.

Swat Tag (4)

Equipment Needed: Knotted towel, stick, rope, sneaker, belt, or swatter. The players are arranged in a circle with their hands behind their backs and their heads bent forward with their eyes on the ground. A man is selected to be "it." He runs about the circle with a swatter in his hands. He places it in the hands of one of the men in the circle. This man turns upon the man who stands at his right in the circle and begins beating him with the swatter and continues beating him as he chases him about the circle to the right until he comes again to the point in the circle he left. The chaser then runs about and places the swatter in the hands of some other man and the game proceeds as before. Hitting on the head is prohibited.

Circle Jump (5)

Equipment Needed: Rope with weight at the end or a bamboo stick. One man takes his place in the center of the circle with the rope or stick in his hands. The men forming the circle join hands. The center man swings the rope or stick about the circle under the feet of the men, who are expected to jump over same as it passes beneath them. If any player in the ring steps on the stick or rope or stops its progress, he must take his place in center and relieve the man there.

Object Tag (6)

Equipment Needed: A ball or some other easily handled object. Players are arranged in a simple ring. A ball is placed in the hands of one of the men forming the ring. A man is selected to be "it." He takes his place in the ring and endeavors to tag the basket ball. The men in the ring, by passing it in either direction, try to keep the ball from being tagged. The men are not allowed to skip more than one man in passing the ball about the circle. The penalty for skipping is that the one passing last shall become "it." If "it" succeeds in tagging the ball the man who last passed same takes his place. The ball is always in play whether it be on the ground outside the circle or in the hands of the players.

Breaking Prison (7)

Players are arranged in a circle with hands joined. The prisoner takes his place in the center of the circle and tries to get out by

breaking the bars (clasped hands) or by going over or under these barriers. Should he escape all other players give chase. The one catching him becomes the prisoner. Prisoners are not allowed to rush more than two strides in attempting to break through the lines.

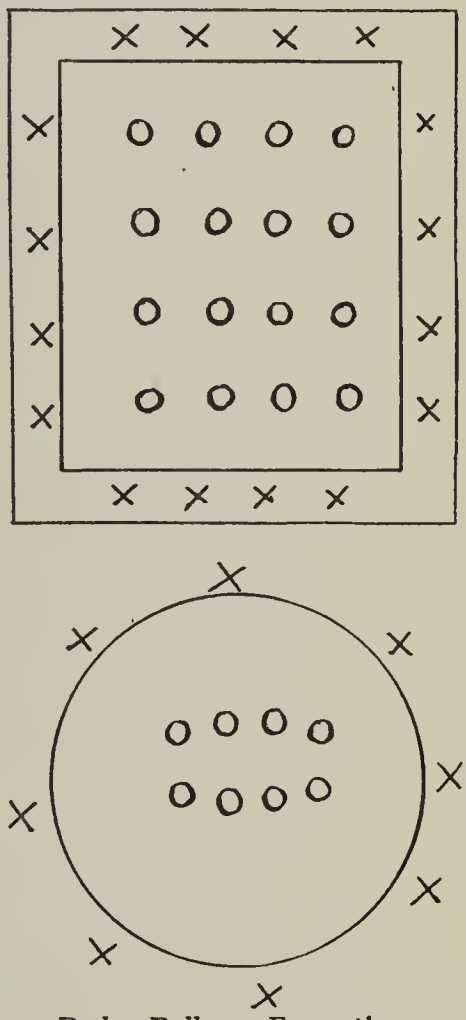
Mount Ball (8)

Equipment Needed: One ball or bean bag. No 2's mount astride the backs of No. 1's and are given the basket ball. The riders endeavor to pass the basket ball back and forth. The players being ridden (the Bronchos) endeavor by jumping and bucking to cause the riders to miss catching the ball. If the ball is dropped upon the ground, the Broncho of the player that dropped the ball picks it up and endeavors to hit the rider with it. (Caution—Bronchos should keep their positions in the ring. The riders are free to run anywhere to avoid being hit.) If he succeeds, then the riders become the Bronchos and the Bronchos are given the ball and the game proceeds as before. Heavy men should be paired together in this game.

Mount Ball

Dodge Ball (9)

Equipment Needed: One or more basket balls and a stop-watch. It is well for this game to have a lime circle marked upon the field. This should be large enough so as to allow all of the players to stand on same with plenty of room to throw the ball. Players of team one take a position on the outside of the line. Players of team two take their places inside of the circle. The object of the players on the outside of the ring is to hit with the ball the players within the ring without stepping into the circle. A player may step into the circle to recover the ball, but must either pass the ball or step outside of the circle before throwing it at an opponent. As soon as a player is hit he must drop outside of the ring. The man in the ring can move freely about, endeavoring to keep from being hit. After all the men in team one have been hit out of the circle the teams change, No. 2 taking the place inside, No. 1 outside. Record is taken of the length of time it required team two to hit team one out of the circle. If team one



Dodge Ball. 2 Formations

succeeds in hitting team two out in a shorter time, it is awarded the game. *Modification*—After a certain period of time the second basket ball can be put in play if desired. This speeds the game up considerably.

Circle Chase (10)

The group form a circle and are counted off in fours. The leader takes his place in the center of the circle. He calls any number from one to four and the men holding the number called by the leader step back and run around the outside of the circle to the right, each endeavoring to tag the man who stands in the circle on his right. If he succeeds in tagging him he takes his place in the circle. The man tagged must go to the center of the circle. The one who eliminates the largest number of players wins the game.

Spinning the Hun (11)

Participants should not exceed 24. Players assume a sitting position (as close together as possible), with their feet toward the center of the circle. A player (the Hun) stands in the center of the circle. He makes himself as rigid as possible with his hands close to his sides. He falls into the hands of one of the men in the circle. This man passes him on to the next, who passes him on to the next, and so on. The man is spun around the circle. His feet are always on the ground, pivoting in the center. (It is well to select a light man to be spun.) If a man allows the Hun to fall he must take his place inside the circle.

Numbers Change (12)

The players stand in a large circle and are numbered consecutively. One player takes his place in the center. He calls two numbers and the players whose numbers are called must change places while the center player tries to secure one of their places. The player whose number is first called does not move until after the second number is called. The one who is left without a place replaces the center player.

Pull into Circle (13)

A small circle should be marked upon the ground. Players are arranged around the circle facing in with joined hands. At the signal to start the players endeavor to make their neighbors step inside of the circle with one or both feet. If successful that individual drops out. As soon as the circle of men becomes too small to fit around the outside of the ring marked on the ground the line is reformed and the game starts over.

Circle Stride Ball (14)

Circle Stride Ball

The boys all but one form a circle, standing in a stride position, with feet touching those of the next boy, making a barricade for the ball. The odd boy stands in the center and tries to throw the ball outside of the circle between the feet of the players. Those in the circle try to prevent the passage of the ball using only their hands for this. The play continues until the boy in the center succeeds in sending the ball through the circle, when he changes place with the boy between whose feet the ball passes. The players must not move their feet, but in returning the ball to the center boy, it may be thrown at different parts of the circle, taking other players off their guard, thus aiding the center player.

B. TAG GAMES

Chain Tag (15)

The base line is at one end of the field of play. One player is appointed to be "it." He endeavors to tag another player. The player when tagged joins hands with "it" and the two endeavor to tag other players. Every player tagged must join hands with the others in a line between "it" and the player first tagged by "it." These two players at the end of the line are the only ones who can tag other players. If any of the other players succeed in breaking the line by breaking the grasp of players in the line, the men who are not in the line have the privilege of chasing those who made up the line back across the base line, slapping them below the belt as they run. Behind the base line the chain is again formed and the game is continued.

Cross Tag (16)

A man is selected as "it." He starts chasing another man. He must continue chasing that man until he either tags him or some third party runs between him and the man he is chasing. Then "it" must chase the man who crossed the path.

Turtle Tag (17)

One, two, or three men can be selected as "it," depending upon the size of the group. Those who are "it" endeavor to tag others. In order to keep from being tagged players must lie upon their backs

on the ground with neither feet nor hands touching the ground. So long as they are in this position they cannot be tagged by "it."

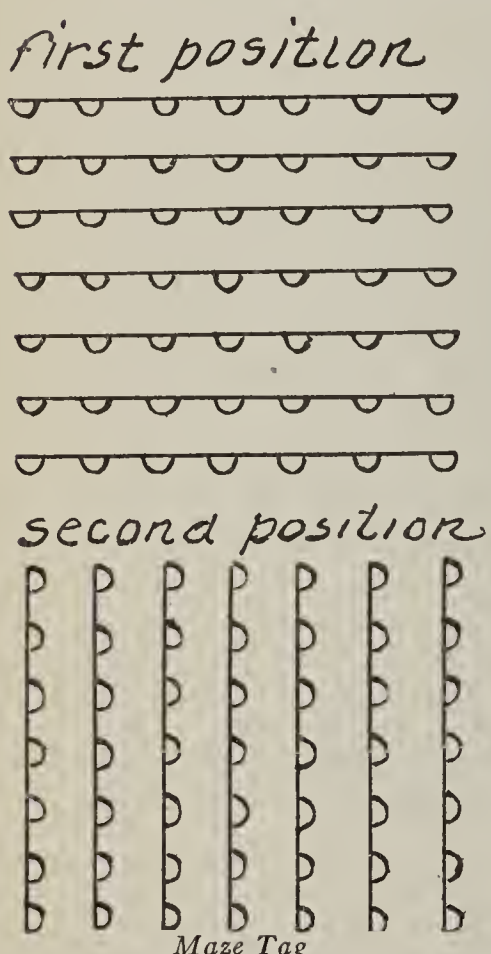
Ostrich Tag

Ostrich Tag (18)

In order to be safe the player must be standing on one foot with opposite arm under knee of same side, hand grasping nose. This may be made more vigorous by allowing the one who is "it" to take one push at any man in this position and if he breaks his position he is subject to being tagged until he again assumes the position.

Maze Tag (19)

All but two of the players stand in parallel lines or ranks, one behind the other, with ample space between each two players and each two ranks. All the players in each rank clasp hands in a long line. This will leave aisles between the ranks and through these a runner and chaser make their way.



Maze Tag

The sport of the game consists in sudden changes in the direction of the aisles, brought about by one player who is chosen as leader and stands aside, giving the commands, "Right face!" or "Left face!" at his discretion. When one of these commands is heard, all of the players standing in the ranks drop hands, face in the direction indicated and quickly clasp hands with the players who are then their neighbors on the right and left. This brings about a change of direction in the aisles and therefore necessitates a change of direction in the course of the two who are running.

The success of the game depends largely upon the judgment of the leader in giving the commands, "Right (or left) face!" They should be given quickly and repeatedly, the leader often choosing a moment when the pursuer seems just about to touch his victim, when the sudden obstruction put in his way by the change in the position of the ranks makes necessary a sudden change of direction on his part. The play continues until the chaser catches his victim, or until the time limit has expired. In either case two new players are then chosen from the ranks to take the places of the first runners.

It is a foul to break through the ranks or to tag across the clasped hands.

Number Tag (20)

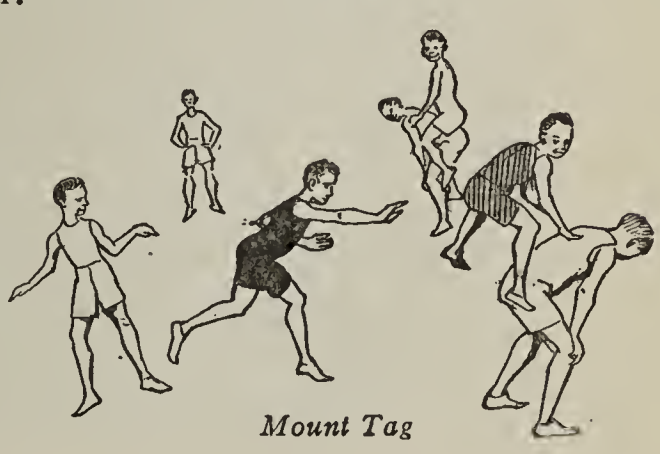
Equipment Needed: An old soft playground ball or basket ball. A small circle (three feet in diameter) is marked in the center of the field of play. Each player is given a number. The game is started by one of the players dropping the ball in the circle and calling a number. The one whose number is called picks up the ball and commands, "Halt!" All players must stand fast upon hearing the command. He endeavors to hit a player with the ball. If he succeeds, the player hit picks up the ball, commands "Halt!" and attempts to hit some one else. The game continues in this way until some one misses. The player who misses hitting another has one point recorded against him and must take the ball to the circle and start the game again by calling a number. If a player has two misses checked against him, he is penalized. The penalty is for that player to run the gauntlet. All the other players line up in two columns, facing each other. The penalized player must run between these columns while the players forming the lines are given the opportunity to slap at him from behind as he runs by. The penalized player is given the ball and the game is continued.

Double Number Tag (21)

Equipment Needed: One basket ball or indoor baseball. Similar to number tag, with the exception that each number is assigned to two individuals. These individuals are known as partners. When a number is called either partner may pick up the ball and endeavor to hit others directly or else pass the ball to his partner, who may either hit a player or return the pass. If in making a pass the ball is not caught by the partner it counts the same as a miss. There is no limit to the number of times the partners may pass the ball between them. If any player is hit with the ball he may immediately endeavor to hit another player or pass to his partner. In this game only misses count against the player. Two misses result in a penalty. Both partners have to run the gauntlet to pay their penalty, whether it has been earned by an individual or collectively. The game is then renewed by one of the penalized partners dropping the ball in the circle and calling a new number.

Mount Tag (22)

Similar to Turtle Tag, with the exception that a player can escape from being tagged by leaping upon the back of another player. Neither the man on the back nor the man who is carrying him are subject to being tagged.



Mount Tag

C. TUGGING AND THROWING GAMES

Line Wrestling (23)

A line is marked upon the field. Teams draw up on each side of the line, facing each other. Object—to pull the opponent across the line. At the command to go the men try to pull opponents across the line. When both feet of a man cross the line he becomes a captive and is out of the game for that trial. The team which has succeeded in pulling over the most men at the end of two minutes wins. The best two out of three pulls, to determine the best team.

Hot Rice (24)

Equipment Needed: One baseball bat or club, one indoor baseball. A player takes the bat and ball in a position centrally located in the playing space. All other players spread out on the floor around the man with the bat. The man with the bat starts the game by batting the ball in any direction. Any player who can get the ball, immediately throws it at the man with the bat. The batter tries to bat the ball, thus protecting himself from being hit. If any part of his body is hit by the ball the man who last threw it is entitled to take the bat. If the batter should bat the ball and one of the other players should catch it, that player would also be entitled to bat. The man with the bat endeavors to protect himself from being hit by placing as much distance between himself and the thrower as possible, either by running from the ball or hitting the ball from him. Upon being hit, however, he immediately drops the bat and the man who threw the ball becomes the batter. All may run about with the exception of the man with the ball. He must throw from the position where he picks it up.

Duck on Rock (25)

A flat rock is placed upon the ground 15 yards in front of a line. Each competitor is given a tin can, block of wood, or a small rock and in turn throws from behind the line endeavoring to have his missle land as near the flat rock as possible. The one whose missle is the greatest distance away from the flat rock is "it." He places his missle (which is called the "duck") on the rock, and the other competitors endeavor to pick up their missles and run back across the line without being tagged by "it." If tagged they become "it" and must place their missles on the rock. As soon as the competitors have crossed the line they endeavor to knock the duck from the flat rock by throwing their missles at it. If successful they are allowed free return passage to the line and the individual who was "it" must replace his duck on the rock before he can tag any of the competitors in their endeavor to race back to the line.

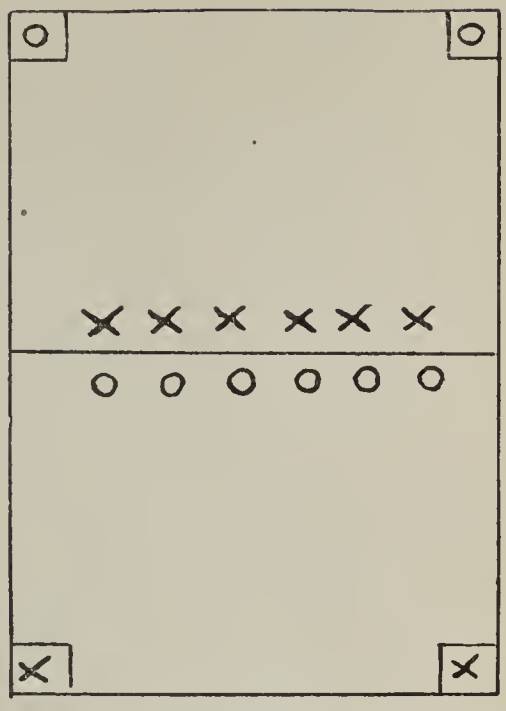
Corner Ball (26)

A space about thirty feet long and twenty feet wide is needed for the game. (See Figure.) A line (1) divides this into two equal parts. At each corner is a base. Each party forms in a straight line about eight feet from the line. Two members of each party take positions in the bases on the other side. Number one of the first party then throws the ball over the heads of the second party, to one of his fellows on either of the bases. If he catches it, he throws it back. The opposing party tries to intercept the ball and, if successful, gains one point. The play then continues, the other side throwing the ball.

The rules of the game are:

1. The members of each party may move about freely in their space.
2. No member may cross the line.

("Mind *v.* Body," Vol. V.)



Corner Ball

Long Ball (27)

Equipment Needed: A playground ball and bat. Two parallel lines 60 feet apart should be made. One line is called "home" and the other "third base." The pitcher's box is half way between the two lines, or it may be placed 35 feet from each line (having two boxes). The player is put out either by being hit with the ball thrown by an opponent or by the regular rules of indoor baseball.

Guess Ball (28)

Equipment Needed: One basket ball. Teams line up behind a certain line. One person is "it" and stands about 25 feet in front of players, with his back to them. Some man throws the ball and tries to hit the fellow standing in front. If successful in hitting the one in front, the one in front tries to guess who hit him. If he guesses the right man, he takes the place of the one who hit him; if not, he takes another turn in being "it." But if the one who aims for the one in front misses, the thrower is "it" and must go out in front, and so on.

Hand Baseball (29)

Equipment Needed: One light rubber or tennis ball. The game is similar to regular baseball with the exception that instead of batting the ball with a bat, the open hand is used. One or three bases can be used according to the number of players. The fielders can put a base runner or batter out as in regular baseball by hitting said batter or base runner when he is off or between bases.

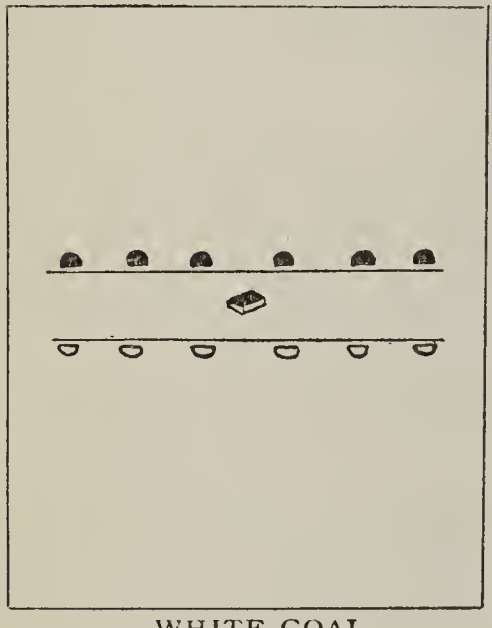
Horseback Wrestling (30)

In this game one-half of the men will be riders and the other half horses. The rider, when astride his horse, will use nothing but his legs as his support during maneuvers. His hands will at all times be kept free and will not touch the horse. It will be the object of the horse to balance his rider properly, so that at the word "Go" two riders can come to combat in a form of wrestling, with the object of dismounting one another. The winners are later assembled for competition among themselves. This game may also be reversed by having the riders become the horses as soon as one has been successful in dismounting the other. A bout is won and ended when any part of the opponent's horse or rider touches the ground, except, of course, the feet of the horse.

D. CHASING GAMES

Stealing Ammunition (31)

Equipment Needed: A number of short sticks, stones, or some such articles. The ground is divided into two equal parts with a small goal marked off at the rear end of each part in which these sticks are placed. Each player who reaches the enemy's goal safely may carry one stick to his own goal and may not be caught while carrying it back. If caught in the enemy's territory before reaching the goal, the player must remain a prisoner in the goal until touched by one of his own side. Neither may he be caught while returning. Any player may catch any opponent except under the rule just stated. No ammunition may be taken by a side while any of its men are prisoners. The game is won by the side gaining all of the ammunition.



Black and White

Black and White (32)

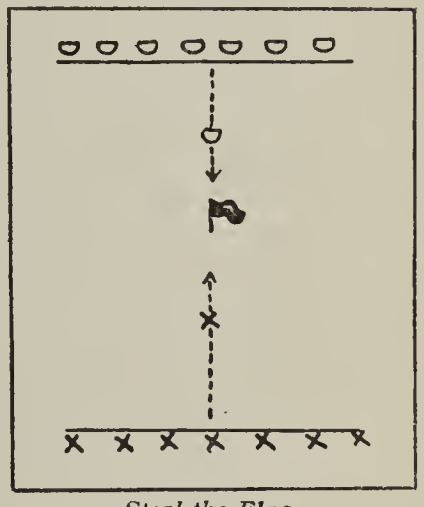
Equipment Needed: A pasteboard or wooden disk about 4" in diameter, white on one side and black on the other. Two base lines, parallel with each other and 50 feet apart, a center line parallel with the base lines and half way between, are marked on the field. Players on opposing teams line up back to back on each side of the center line with a space of 6 feet between the lines. One team is called "White," the other "Black." The disk is thrown into the air by the official. If the white side turns up, the "White" team chases the "Black" team across their base line. Every man tagged by the "White" team men, joins the "White" team. The two teams line up as before, the disk is again thrown and whichever side comes up, that team endeavors to tag its opponents

before they can run across their base line. The team having the largest number of players at the end of the game wins.

Marching Tag (33)

Two base lines fifty feet apart. The group is broken up into two units. These units form in company front behind their base lines, facing each other. Unit No. 1 marches foward in this formation and continues so to march until a whistle is blown. The whistle is the signal for Unit No. 1 to break ranks and run back to its base line before the men forming Unit No. 2 can tag its members. No. 2 men cannot leave their base until the whistle is blown. Every man tagged before crossing his base line must line up with No. 2. Unit No. 2 then marches foward until a whistle is blown and is chased back behind its base line by Unit No. 1. The line having the largest number of players after an equal number of trials wins the game.

Steal the Flag (34)

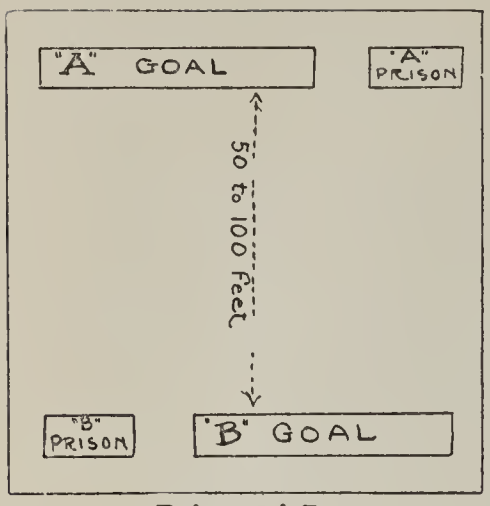


Steal the Flag

Equipment Needed: *A small stick two feet long.* (*This may have a flag attached if desired.*) Two base lines are drawn parallel and 50 feet apart. Players on opposing teams line up behind the two lines, facing each other. A captain is selected. Each team sends out one representative to the center of the field, where the small stick has been stuck into the ground in a vertical position. The object of each man who has been sent to the center is to grasp the stick and get away behind the base line before he can be tagged by the opponent. If he succeeds it counts one point for his team. If he is tagged by his opponent, it counts one for the opponents. Either man has the privilege of grasping the stick and attempting to return with it to his line. The stick is immediately stuck up in the center field and each captain selects another of his team to send foward to capture the stick the second time. The game is continued until each man has had equal opportunity to steal the stick.

Prisoners' Base (35)

Two lines are drawn parallel and 50 feet apart, known as base lines; a 5-foot square behind each line serves as prison. The teams line up one behind each line. One or more players from either team leave the base line and run toward the opponent. One or more members of the opposing team rush out and try to tag them before they return to their base lines. The last player to leave the base line may tag any opponent and is only subject to being tagged by an opponent who has left the base line later than he did. A player may run back across his own base line and immediately enter the field of activity again in an effort to tag an opponent before he can return to his own



Prisoners' Base

base line. As soon as a player is tagged by an opponent he is taken to prison behind the opponent's line. A captor is given free passage back with his prisoner to the base line. Prisoners stay within the prison until one of their team-mates succeeds in tagging them without previously being tagged by an opponent. When a prisoner is released from the prison free passage is given to the one who succeeded in releasing him. The team having the most prisoners at the end of a given time wins the game.

Run Sheep Run (36)

Two captains are chosen who in turn alternately choose players for their team. One team becomes a searching party and remains at the goal, while the other team goes out with its captain, who directs the various individuals where to hide, after agreeing with his party on a series of signals to be used, as described below. When all are hidden, this captain goes back to the searchers, who at once start out on a hunt under the direction of their captain, who may divide or dispose of his party as he sees fit. The captain of the hiding party remains with the searchers, calling out signals to his hidden men which shall enable them to approach nearer to the goal by dodging from one hiding place to another, always trying to keep out of sight of the searchers. Neither party, however, may run to the goal until his own captain shouts, "Run, Sheep, Run." The captain of the hiding party is generally the first one to give this signal and he does so whenever he thinks his men are well placed to make the goal. The captain of the searchers naturally gives the signal to his men as soon as he hears his competitors give it, as the game is won by the party of which one player first reaches the goal. Should any member of the searching party catch sight of an opposing player before all run to the goal, he tells his captain, who at once shouts, "Run, Sheep, Run." Any signals may be agreed upon between the captain of the hiding party and his men. The following are examples: One whistle meaning "Keep low"; two whistles, "Push to the left"; three whistles, "Danger"; four whistles, "Push to the right"; five whistles, Push toward the goal."

Hip (37)

Equipment Needed: One stick about two feet long. All the players stand in an informal group. One of them is provided with the stick, which he throws as far as he can, at the same time calling the name or number of one of the other players. The one who threw the stick,

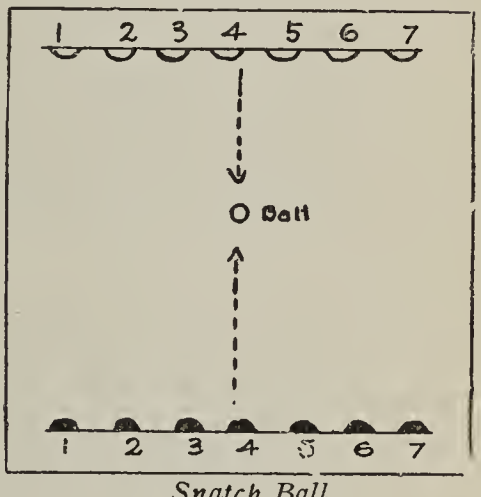
and all the others except the one whose name is called, scatter. The one who is called must pick up the stick, whereupon he becomes "Hip" and must chase the other players. Any player whom he catches he touches with the stick (pounding not allowed), and that player at once joins him in trying to catch the others. Anyone caught by the second player, however, must be held by him until "Hip" can come and touch the prisoner with the stick. The one touched with the stick, thereupon joins "Hip's" party and tries to catch and hold other players until touched by the stick of "Hip."

Fox and Geese (38)

One player is chosen to be fox and another to be gander. The remaining players all stand in single file behind the gander, each with his hands on the shoulders of the one next in front. The gander tries to protect his flock of geese from being caught by the fox, and to do this spreads out his arms and dodges around in any way he sees fit to circumvent the efforts of the fox. Only the last goose in the line may be tagged by the fox, or should the line be very long, the last five or ten players may be tagged as decided beforehand. It will be seen that the geese may all cooperate with the gander by doubling and redoubling their line to prevent the fox from tagging the last goose. Should the fox tag the last goose (or one of the last five or ten, if that be permissible), that goose becomes fox and the fox becomes gander.

Snatch Ball (39)

Equipment Needed: A stone, ball, or handkerchief. Any number of players can participate. Form two lines facing each other, the lines being about eight paces apart. The players number off on each side from one to the number of men in line. The object is mid-way between lines. The leader calls a number, both men run for the object and one, either by speed or strategy, snatches the object and returns to his own side, without being tagged by the same numbered player from the other side, thereby scoring one point for his side. Should the other man touch him the other side would score the point. Game to continue any number of points. To make the game more complex, call two or more numbers. This makes it harder to snatch the ball.

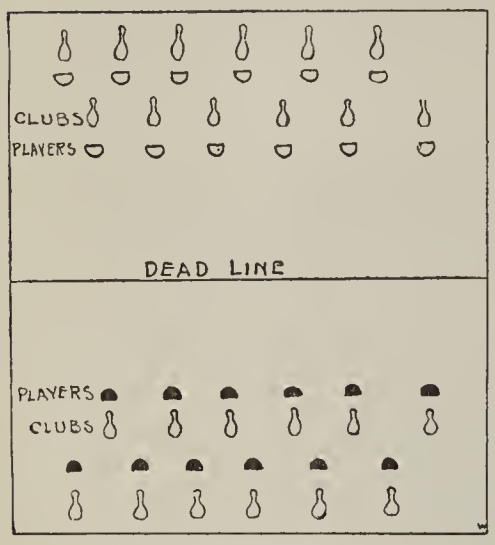


Snatch Ball

Fox in the Hole, Safety First Hop (40)

Any number of players may participate. Area for the game should be restricted, not too large; a four-foot circle should be made for a base. The leader chooses one player for Fox or Hopper. While this player is on the base he may stand on two feet, but when

he leaves the base to catch another player he must hop on one foot. Should he put the other foot down, he must return to the base and every player can slap him on the back until he does, but no player may block his path to the base. Should a player become tagged he becomes the Fox, and the other players may slap him on the back until he is safe on the base.



Bombardment

Bombardment (41)

The ground is divided into two equal fields by a line drawn across the center. At the rear of each section an Indian club for each player is placed, the player standing in front of the club, as per diagram. The object of the game is to knock down the opponents' clubs, each player, therefore, serving as guard to protect his club and as a thrower. He may throw whenever he can secure a ball. The balls are placed at the beginning of the game in the center of the field. None of the players of either team are allowed to pass over this center line. The score is taken at a given time, the side knocking down the largest numberof pins winning.

This game may also be played by using a straight elimination play, that is, as soon as a player's club is knocked down, he picks it up, and leaves the floor, the game proceeding until either one of the teams is eliminated.

Another variation is to have each player go over to the opposite side when his club is knocked down until one side gets all of the opponents' players.

Treasure Hunt (42)

This game is a very adaptable one and can be run in a great number of different ways. It can be as simple or as complex as any leader may desire.

A mysterious letter may be read to the group or a letter in code posted where the group can see it. The contents of this letter will direct any one to a place where they will find detailed information as to the exact location of a buried treasure. By following instructions, working out the code, a boy will discover a second letter in hiding. A time limit may be allowed to find letter No. 3. At the end of that time the information contained in the second letter may be given to the entire group, so that they may hunt for letter No. 3. This method keeps everybody in the game.

As many letters may be hidden as desired, using the treasure as the last.

As stated before, this game is adaptable and can be made to teach observation, trailing, and tracking. Letters using identification of

trees, flowers, moss on trees, birds' nests, and so forth, may be used. Map and chart reading make the game more difficult. Letters may be written in Morse and Continental codes or easy codes may be made up.

"Eats," a good book on trees, flowers, a small axe, or any useful article may be the hidden treasure.

E. QUIET SOCIAL GAMES

Mingling Games

Games which can be used at the beginning of a social evening for the purpose of causing the group to mingle.

Capitals (1)

Half of the group will have pinned on them the outlines of different states without the names. The other half are given on slips of paper names of capital cities of states. The latter group are supposed to locate partners by finding the state to which they hold the capital.

Around the World (2)

Each player is given a card and a pencil. Various articles are scattered throughout the room, representing different countries, states, or cities—for example: A wooden shoe for Holland, a picture of a bull for Spain, a package of tea for China, a bear for Russia. Each article is numbered. The players circulate about the room endeavoring to guess what each article represents. Each writes his guess, with the number of the article, on his card.

Alphabetical Answers (3)

Cards having different letters of the alphabet are made. Each player has one of these cards pinned upon his person. It is well to eliminate the letters v, x, and z in this game. One player asks another a question and that player must answer, having his first word commence with the letter pinned upon him. He must complete his answer before the questioner can count ten. If unsuccessful he must surrender his letter to the counter. The player having the largest number of letters at the end wins the game. Two players cannot question the same individual at the same time. The one questioned cannot use the same answer twice.

Who Am I? (4)

Each player has pinned upon his back the name of some prominent personage. In conversing with each other the conversation is carried on as though it were addressed to the personage whose name is

pinned on the back of the individual. It is the object of each individual to guess the personage he represents.

Trick Games

Mirror Pictures (1)

It is necessary for the one who plays this trick game to have an accomplice. The one who is to illustrate the game goes out of the room. His accomplice explains that he can picture the face of one of the individuals in the room upon the mirror, so that the person who has been sent from the room on his return can guess whose picture was taken. The accomplice then calls to the center of the room one of the group and has him look for a few seconds into the mirror. After the picture is taken in this way, the one who has been sent from the room is called back and to the amazement of the group he names the player whose picture is supposed to be photographed in the mirror.

The Trick

The accomplice who takes the picture sits in the seat of the one whose picture was taken, hence it is necessary for the one who leaves the room to observe the positions of the various players before going out.

Magic Writing (2)

An accomplice is required in this game. The one who is to illustrate the game leaves the room. The accomplice asks the others remaining in the room to select some word. Suppose the word selected be "hours." The one sent from the room is then called in. The accomplice has a short stick in his hand and by a series of mystic flourishes and knocks interprets the word to the player who left the room. He, to the astonishment of all, guesses the exact word decided upon.

The Trick

The vowel "a" is represented by 1 knock; "e" is represented by 2 knocks; "i" is represented by 3 knocks; "o" is represented by 4 knocks; "u" is represented by 5 knocks. The consonant "h" is interpreted by the conversation. For example, the accomplice in interpreting the "h" in "hours" to the one returning to the room did it in this way. Flourishing the stick in the air he says "Having a hard time, are you not?" The guesser knows by that the first letter is "h." The accomplice then taps four times with a stick indicating "o," then after a few more flourishes taps five times representing "u," then says to the players, "Remember the word you have chosen," which gives the letter "r" to the guesser. The accomplice then says,

"Seems as though you should have it by now," and the one who left the room knows that the word "hours" was the one selected and so states.

Watch Trick (3)

An accomplice is required for this game. The one who is to illustrate the game leaves the room. The players remaining in the room then determine upon some object which shall be hidden. This object is unknown to the one who leaves the room. After it is properly hidden the lights are turned out to make the trick seem the more difficult. The players are cautioned that they must keep absolutely quiet during the game. The guesser is called into the room and with little difficulty goes to the object and discovers it to the other players.

The Trick

The accomplice places a watch beside the hidden object and the one who leaves the room locates the hidden article by the tick of the watch.

Guessing Games

Verbal Authors (1)

A judge is selected who takes his place in the center of the group. Each player in turn has to stand up and name the title of a book. The others are to guess the author. The one first naming the author scores one point. The next individual then stands up and gives another title. The game continues. The individual naming the most authors scores the highest number of points.

Another way to play the same game is to give each player a card and a pencil and have him write thereon as many of the authors as he knows.

Words (2)

The players are arranged as in a spelling match. Sides may be chosen if desired. The first one in the line starts by giving a letter. The next one in line adds a letter to it. Suppose the first letter given to be "m." The second player thinking of "money" says "o." The third player thinking of "mobilize" says "b," but as m-o-b is a complete word the third player must take his place at the end of the line for completing the word, as no word is supposed to be completed until the turn of the last player.

Gossip (3)

A player is sent out of the room. A judge is selected who asks each player left in the room to make some statement about the individual who has been sent out of the room and writes down the

statement and the name of the individual making it. Example of statements: "His chin is too long." "He has his mother's eyes." "He is a poor hunter." When the leader has selected all of these statements the individual is called back into the room. The leader then reads off the various statements made and it is up to the one who left the room to guess who it was that made the statements about him. If he guesses correctly that individual is sent out of the room and the game continues.

Telegrams (4)

Each player is given a telegram blank and pencil. Upon this he places ten letters about one and one-half inches apart. He cannot use the same letter twice. All of the blanks are then passed to the right and each player writes a telegram, using words starting with the various letters he finds upon this blank. The telegrams are then read aloud.

Shouting Proverbs (5)

A player is sent from the room. Those remaining think of some proverb. Each player is given a word of the proverb. When the player is called back into the room they all shout at the same time the word of the proverb which has been given them. It is up to the guesser to tell the proverb.

Find the Ring (6)

Equipment Needed: A long piece of string with a small ring on it, the string being tied. The players sit in a circle, holding in their hands a long piece of string tied at the ends so as to form a circle large enough to go around, a small ring having been put upon this string. One player is chosen to stand in the center. The players who are seated then pass the ring from one to another, the object being for the player in the center to detect who has the ring. The other players will try to deceive him by making passes to indicate the passage of the ring when it really is not in their vicinity. When the player in the center thinks he knows who has the ring, he calls out the name of the player. If right, he sits down, and that player must take his place in the center.

Animal Blind Man's Buff (7)

A player is blindfolded and placed in the center of the group. After having been turned about several times to confuse his location, he is handed a short stick. He endeavors to touch an individual with the stick. (The players are not allowed to move about to avoid being touched by the stick.) Upon touching an individual he gives

the name of an animal and the player touched must try to imitate the noise that animal makes. Upon hearing the noise, the one blindfolded endeavors to recognize who it is that makes it. If successful, that individual takes his place.

Team Games

Clothespins (1)

Equipment needed: Three dozen clothes pins. The players are divided into two teams and arranged in two lines facing each other, seated. A dozen and a half clothespins are handed to the two players facing each other at one end of the lines. The pins must be held in the grasp of the two hands. At the signal to start, the player holding the bundle of pins passes the bundle to the next player in the line. The object of the game is to pass the bundle of clothespins from hand to hand to the other end of the line and return. If any of the pins are spilled, the individual dropping the same must recover them for his bundle before passing them on to the next. The team that first succeeds in passing the bundle of pins to the end of the line and back wins.

Cross Questions (2)

All but one of the players sit in two rows facing each other, those directly opposite each other being partners. The odd player walks around the rows behind the others, asking questions of any player facing him from the farther row. The question must be answered, not by the player addressed, but by his partner or vis-a-vis, who sits with back to the questioner. Any player answering a question addressed directly to him, or failing to answer one addressed to his partner, or giving an incorrect answer to a question, changes places with the questioner, or pays a forfeit, as may have been decided on beforehand.

Jenkins Up (3)

Divide the company into two sides. One division sits around the table on one side, the other on the opposite side. The members of division "A" put their hands under the table and a small coin, dime or quarter, is passed from one to the other.

When division "B" thinks they have had enough time, the players call out, "Jenkins up!" and the players of "A" hold up their closed hands, and when "Jenkins down!" is called, they must place their hands, palm down, on the table. The players of "B" must guess under which palm the coin is. Each player has one guess, those on the opposite side raising their hands when requested to do so.

If "B" guesses correctly, the coin is passed over to them and "A" must guess who has it, but if not, "A" keeps the coin, and "B" has

another trial for guessing. Tally may be kept, 1 being counted for every correct guess, and a certain number, as 50, may be the limit. The side gaining 50 points first is victorious.

Fire (4)

Choose two leaders from among the players. Each leader chooses his side. The sides sit opposite each other, and the leader of one throws a ball to any one on the opposite side. As he does so he says either, "Earth," "Air," "Water," or "Fire," and counts ten.

The person who caught the ball must answer before he finishes counting ten. If "earth" was called, he must name some quadruped found therein; if "water," some fish must be named; if "air," the name of some bird; but if "fire" was called he must remain perfectly still.

If the players give a wrong answer or speak when they should be silent they are out, and the leader must throw the ball to some one else, but if the players answer correctly, it is their turn to throw the ball to someone on the opposite side, and the game goes on as before.

The side whose players stand up the longest, wins the game.

Location (5)

The group is divided into two teams. A leader is selected for each group. A player on team 1 calls the name of a town or place and counts ten. While he is counting the opposite opponent must give the location of the town or place. If he has not succeeded before the counter has reached "ten," he drops out. The second player on team 2 then names a place and it is up to the second player on team 1 to give the location. When all the players have had a chance the team having the largest number of players remaining, wins.

II. RELAY RACES

For line relays the teams are arranged in columns of file with the columns running parallel to each other and at least ten feet apart. This is the simplest formation in which the players can be grouped. A fixed line of lime, tennis tape, or sunken wooden take-off boards should be so placed on the field that competing teams have equal advantage. This line shall be known as the starting line and the front man in each column shall toe this line. Another line which shall serve as the distance line shall be placed thirty feet in front of and parallel to the starting line.

When large numbers of teams are competing it is well to have the man who finishes the relay wear some distinguishing mark to aid the judges.

A. PASSING RELAYS

(*Note.* A shoe, stone, bean bag, ball, or some other object can be used in the following events.)

Straddle Relay (1)

Players stand in the stride-stand position with the object to be passed on the line in front of the first contestant. A the start the object is passed between the legs of the contestants in the column until it reaches the back of the column. There it is picked up by the end man who carries it forward on the left side of his column to the distance line which he must touch. He then returns to the front of his column where he faces about and passes the object back between his own legs toward the back of the column where it is picked up by the end man who repeats the performance of the preceding end man. When every man has carried the ball forward the last man finishes the race when he crosses the distance line.

Straddle Relay

Over the Top (2)

Players stand at attention with the object to be passed on the line in front of the column. At the start signal the object is passed back over the head by the first player to the second and so on until it reaches the last player. (Every player in the column must grasp and pass the object.) The end player carries the object forward over the backs of the players in the column in front of him who assume a stooping position. As soon as he reaches the front of the line he runs to the distance line after touching which he returns to the front of his column and starts the object back over his head. When every player has carried the object forward the last player finishes the race when he rushes forward across the distance line.

Over and Under (3)

Like No. 2 excepting that every other player must pass the object between the legs.

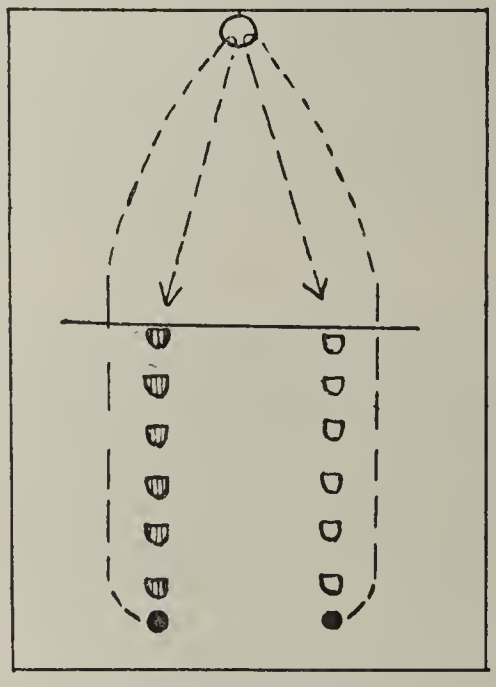
In and Out (4)

Players stand in the stride-stand position, with the object on the line in front of the first contestant. At the start signal the object is rolled back between the legs of the players in the column until it reaches the back of the column where it is picked up by the end player who runs forward to the right of the player in front of him, to the left of the second, to the right of the third, etc., until he has

reached the front line whereupon he runs to the distance line which he touches. Returning to the front of the column he starts the object back between his legs. When every player has carried the object forward the last player finishes the race when he crosses the distance line.

Basket Ball Relay (5)

Equipment Needed: One basket ball for each team competing and one basket ball basket for every six teams competing. The ball is placed on the starting line in front of the column. Players assume a stride-stand position. At the signal to go the ball is passed back between the legs of the men in the column until it reaches the last man in the



Basket Ball Relay
(*See also cut on page 397*)

column, who rushes forward and shoots the ball into the basket, which should be located about fifteen yards in front of the column. As the men from the other columns will be endeavoring to shoot from their places through the basket at the same time, this makes a very spirited game. A man can shoot for his basket from any position on the floor, but must shoot until the ball passes into the basket. Players are not allowed to interfere with each other in shooting the basket. After the goal has been properly made, the men return to the front of their columns and each starts the ball back between his legs and the game continues until every man has shot the required basket.

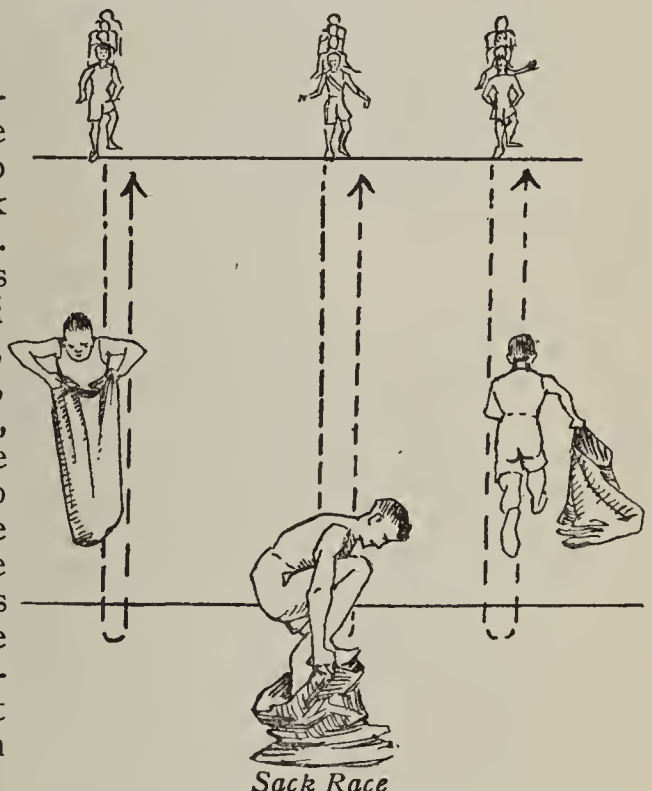
B. EQUIPMENT RACES

Potato Race (6)

Equipment Needed: One potato and a block of wood or a stone for each competitor. A circle 18 inches in diameter is placed three feet in front of the starting line in front of each column. Another circle of the same size is placed about 15 yards in front of the first circle. As many potatoes are placed in the circle nearest the start line as there are competitors in the line. (*Note.* A basket can be used in place of these two circles, if available.) At the signal to start, the first player in each column runs forward, picks up a potato from the nearest circle, carries it to and drops it into the far circle. (*Note.* The potato must be within the circle, not touching the line.) After properly placing the potato in the far circle, the player returns, tags off the front player in the column, and takes his place at the rear of the column. The man tagged off repeats the performance, carrying off the second potato, etc. The race ends when the last player, after carrying his potato to the far circle, returns across the line.

Sack Race (7)

Equipment Needed: One good-sized crocker sack for each line. The front player in the column gets into the crocker sack. The crocker sack must be held well up under the arms. At the signal to go the player jumps forward to the distance line, beyond which he takes off the crocker sack, runs back to the front of the column, hands the sack to the second player, who gets into same. He must have pulled the crocker sack well up under the arms before he crosses the starting line. He then repeats the performance of the first. Players returning from the distance line take their places at the rear of the column. The race is won when the last player on the team crosses the finish line.



Sack Race

Stab-the-Spud Race (8)

Equipment Needed: One potato and one pointed stick, two feet long, for each competitor. A circle 18 inches in diameter is placed in front of each column. Another circle of the same size is placed about 15 yards in front of the first circle. As many potatoes are placed in the circle farthest away from the starting line as there are players in the line. The first player in each line is given a pointed stick. At the signal to go, he runs forward to the far circle, sticks his pointed stick

into one of the potatoes and runs back with it to the near circle. He is allowed to interfere with other competitors in attempting to make them lose their potato from their stick, so long as his potato is on his stick. His potato must be deposited within the circle nearest the front of his column before he hands his stick to the next player in the column, who runs and gets a second potato. After handing the stick to the front player in the column, competitors take their place at the rear of the line. The race ends when the last player, having properly deposited his potato within the circle, and having made sure that every other potato is within the circle, crosses the finish line.

Overcoat Relay Race (9)

Equipment Needed: Overcoat and gloves for each team. Have half of the players from each team in a column of file, opposite 40 yards from scratch, the leading players at scratch to be equipped with overcoat and gloves. At start the leading player runs to the leading player of his team opposite and transfers overcoat and gloves to him. This player returns to scratch, wearing overcoat and gloves and transfers to second player at scratch, and so on until last player of team has returned to scratch, wearing overcoat and gloves. Each player of team to run once only. Overcoat and gloves cannot be taken off until finish line is crossed. The player receiving same can put them on while running.

C. NOVELTY RELAY RACES

Monkey and Crab Race (10)

Players are arranged in parallel columns of file. At the signal to start the first player in the column places his hands on the ground and walks monkey fashion to the distance line. On reaching same he assumes a running position and returns to the front of the column where he touches off the second player, he himself going to the back end of the column. The second player gets down with his hands and feet on the ground, facing upward, and continues across the distance line in this position. He returns, tags No. 3, and takes his place behind No. 1 at the rear of the column. No. 3 walks monkey fashion. The rest of the column continues alternating, one man walking facing down and the other facing up with hands and feet on the ground until the last player, returning from the distance line, crosses the starting line.

Leapfrog Race (11)

Players stand in columns of file with a distance of four feet between individuals. At the signal to start all the players in the column, excepting the last player, assume a stooping position. The last player will take frog leaps over the backs of the players in the column followed by the next to the last player, etc. As soon as the

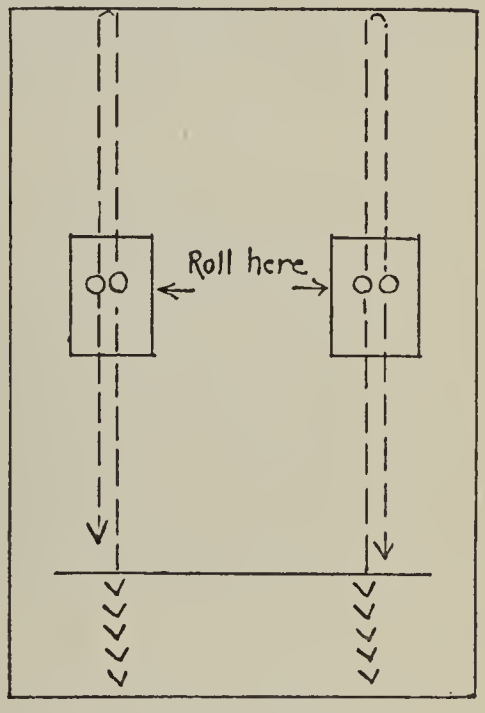
ast player reaches the front of the column, he assumes a stooping position, likewise the player who followed him. When the player who headed the column has leaped over the backs of the players making up the column, he rushes forward across the distance line ending the race.

Hop Race (12)

The front player in the column hops on his right foot to the distance line, returning on his left foot. He tags off the next player on his team and takes his place on the end of the line. The race finishes when the last player returns from the distance line and crosses the starting line.

Forward Roll Relay (13)

Place a mat in center of floor in front of each team. Players run to mat, forward roll on mat, run to the end of the room; returning make another forward roll and run back to team, touching off No. 2 who does the same. If a team can do a backward roll use it for variety, or alternate.



Forward Roll Relay

Frog Race (14)

Similar to the hop race with the exception that the competitors travel in frog leaps rather than by hops. (*Note.* The frog leap is executed in this fashion. The player places both hands upon the ground supporting his weight thereupon as he jumps both feet forward, feet outside of hands. He then moves both hands forward simultaneously followed by both feet.) He travels the entire distance to the distance line, upon reaching which he assumes a standing position and runs back, tagging off the second competitor.

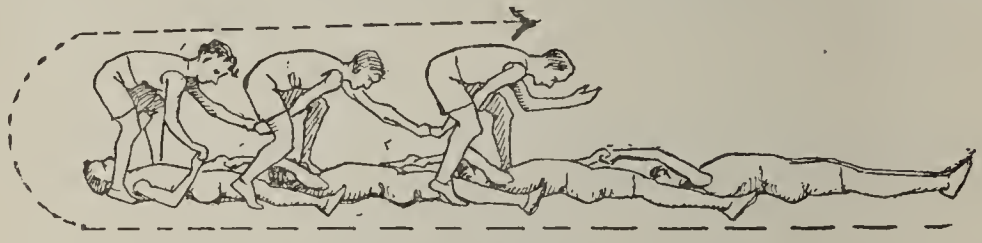
Skin the Snake (15)

Participants again assume the column of file position. Each reaches back between his legs with his right hand and grasps the left hand of the team-mate behind him. Upon the signal to start, the back player in the column lies down, keeping his feet together, and maintaining his grip on team-mate's hand. The column walks backwards over him. The next to the last player lies down beyond the last, etc., until the entire column is stretched on the ground. The player who was in the front of the column will be the last player to lie down. He gets up immediately and, running forward, straddling

the line, pulls the line with him. The line which gets to its feet the quickest without having broken, wins the race.

Slap Obstacle (16)

Players are arranged in parallel lines. Four players are selected from each column and are placed in front of and in line with the column with a distance of five yards between them. The first player in front of the column stands at attention; the second player takes a stooping position, as for leapfrog; the third player



Skin the Snake

takes a stride-stand position; the fourth player stands at attention. At the signal to start the player in front of the column runs forward, circling number one, leaping over number two, crawling between the straddle legs of number three, circling number four. After which he runs to the rear of the column, where he slaps the back of the last player; the last player slaps the back of the player in front of him and the slap is passed to the front player in the line who rushes forward upon receiving his slap and repeats the performance of the first runner. The game is finished when the last player in the column, after clearing all obstacles, crosses the starting line.

Rule. Runners are not allowed to grasp the man as they run around him.

Dead Man Relay (17)

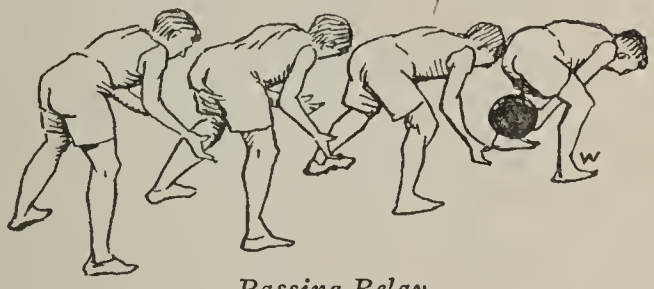
The front player in the column is instructed to go half way to the distance line and lie upon his back upon the ground with his head towards his team. At the signal to go, the second player in the column runs to the player lying upon the ground and lifts him by the shoulders to a standing position. (The player lying upon the ground should keep perfectly rigid.) The player lifted, then runs to the finish line. From there, he returns to the rear of his line. In the meantime the player who lifted him from the ground, lies upon his back in the same position as the player lifted. He who has gone to the rear slaps the player in front of him, and the slap is passed on until it reaches the player in the front of the column. He runs forward, lifts the dead man, and takes his place. The player runs to the finish line, and returning to the rear of the column, starts the

slap forward. The game ends when the last player in the line is lifted from the dead man's position, crosses the distance line and returns across the start line.

Attention (18)

Players stand at attention and are numbered off from the front of each column. The leader calls a certain number. The player of that number in each column runs forward on the right hand side, circling his column. Upon reaching the opening made by himself in the column, he steps in, assuming the attitude of attention. One point is awarded to the team whose runner first assumes the proper attitude in the column. Another number is called and the game continues.

Pass the Buck (19)



Passing Relay
(*See page 392*)

The players are in formation of two or more files, standing at stride-stand position with forward body bend and hands upon hips. Upon the starting signal the back man comes to the position of attention—with a snap—at the same time striking hard with the open palms of both hands the seat of the player in front of him, who in turn "Passes the Buck" on down the file. When the file leader receives the "Buck" he immediately gives the command, "About face!" The file about faces and jumps to a stride-stand forward trunk bend and the "Buck" is then passed up the file harder and faster than it went down. This is a relay race and the file getting the "Buck" back to its file-closer first wins. It is advisable to repeat the relay, *i. e.*, have the "Buck" passed down and up the file twice.

Spin around Relay (20)

A player is sent forward from each line to a position ten yards in front of and in line with his column. He shall be known as the pivot. At the signal to start the player at the head of the column runs to the pivot, links his right arm in the right arm of the pivot and swings around him, and then returns to the rear of the line, links the arm of the man at the rear and pivots around him. He then runs and tags off the man at the front of the column and takes his place at the rear. The man tagged off repeats the performance of the first man who ran.

Jump Stick Relay (21)

Equipment Needed: One stick at least three feet long for each team. The stick is held in the hand of the first player in the column. Upon

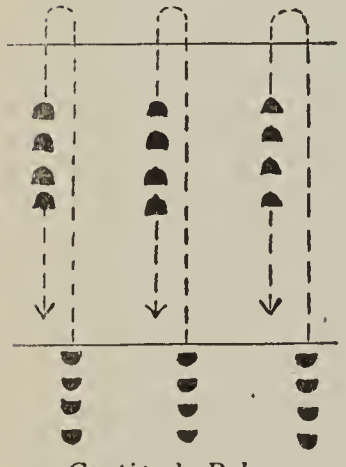
the signal to start he runs to the distance line, touching the line or the ground beyond with the stick. He then returns to the front of the column and hands the other end of the stick to No. 2. Then holding the stick between them and near the ground, they run to the rear of the column on each side. The players in the column leap over the stick as it reaches their feet. Upon coming to the rear end of the column No. 2 takes the stick and runs to the distance line, which he touches. He returns to the front of the column, hands the other end of the stick to No. 3 and the game continues until the last player in the column carries the stick across the distance line.

Flag Race (22)

In this race the players face to the left. A flag is stuck in the ground on the starting line. At the signal to start the contestant nearest the flag picks it up and hands it to his next neighbor. In this way it is passed to the end of the line. The end player takes the flag and runs in front of his line to the distance line. Returning to the right of his column, he starts passing the flag along. The player who is then last in line repeats the performance and so on until every player has run. The last player finishes the race when he crosses the distance line.

Rescue Race (23)

Players stand at attention. At the signal to start No. 2 in the column leaps upon the back of No. 1, who carries him across the distance line in piggy-back position. There he drops him. No. 1 remains behind the distance line. No. 2 rushes back and picks up No. 3 in the column and carries him beyond the distance line and No. 2 remains there. No. 3 rushes back and picks up No. 4, etc., etc. When the last player in the column has been carried across the distance line the race is finished.



Centipede Relay

Centipede Relay (24)

The first four players in the column straddle a broomstick. It is required that the first three players grasp the broomstick with both hands in front of them. The last player of the four must grasp the broomstick with both hands behind him. In this position they run across the distance line and return. Behind the finish line they give the broomstick to the next four players on their team, and take their place at the rear of the line, while the second four repeat the performance of the first. The race ends when the last group of four crosses the start line.

Paul Revere Race (25)

Players are arranged in column of file "open order" with a distance of ten to twenty feet between the contestants. A light player is selected from each team to act as rider. He starts just back of the last man in the column. Upon the given signal he leaps upon the back of the last man who carries him to the man next in front of him in line. The rider must change from the back of the first steed on to the back of the second without touching the ground. The second steed carries him to the third and he is passed on from steed to steed until he reaches the front man in the column, who carries him across the distance line, ending the race.

Chariot Race (26)

Each line is grouped in pairs. At the signal to start the first pair with arms locked run across the distance line, returning across the start line, running to the rear end of the column. They slap the last pair. That pair passes the slap on to the pair next in front of them, etc. As soon as the slap reaches the pair at the head of the column, they start. The race ends when the last pair returning cross the finish line.

Three-Legged Race (27)

No equipment needed other than the belts of the competing players. The competitors on the team are grouped in pairs. Team-mates stand opposite each other and have their inside legs strapped together just above the ankle with one belt and above the knee with the other. Their inside arms are placed around the back of their team-mate. The race is run in this fashion. When the first pair returns from the distance line they tag off the second and the second tags off the third, etc.

III. STUNTS

STUNT ATHLETIC MEET

One Hundred Yard Dash (1)

As many pieces of string are tacked to the wall, four feet, eight inches above the ground and about two feet apart, at one end of the stage or room, as there are competitors. The string to be twelve feet long. The contestants take the end of the string in their mouths and line up facing the point where their string is tacked. At the word, "GO," without the use of hands, they gather the string into their mouths until all the string has been taken into the mouth and the end attached to the wall is reached. The string must be kept taut at all times.

16-Pound Shot Put (2)

An inflated paper bag is put for distance, as though it were a shot, from the shoulder.

Potato Race (3)

A potato or some similar object is placed at the starting line. The race consists of pushing same with the nose to a certain point and back across the starting line.

Newspaper Race (4)

Contestants line up upon a starting line with a newspaper folded in quarter size under each foot. Each at the signal to start, lifts up one foot, and balancing on the other without touching the floor slides the paper forward with his hand. He then brings one foot down upon it, claps his hands above his head and lifts the other from its paper, which he moves forward with his hand. The foot supporting the body must rest upon the paper and the hands must be clapped above the head between each step. The race continues for a distance of about 25 yards.

Driving Contest (5)

Equipment Needed: Hammer and ten nails to each man. Plank 4 x 4, 6 or 8 feet long. Two or three men strive to see who can drive his nails first. Each man drives his nails into the same plank at the same time. This is very difficult, as the blows are not struck at the same time and the plank will be very unsteady, and one is liable to wallop his fingers. At any rate, he will miss many strokes.

Blindfold Race (6)

Contestants are blindfolded and after being spun about several times, start on the race which is to the other end of the room and back.

Soaped Pole Climb (7)

Climbing a greased or soaped pole for prizes at the top.

Bottle Balance (8)

Contestant sits with his legs extended upon a large bottle or jug, lying upon its side. The right heel is placed on top of the left toe. A box of safety matches and a candle are handed each contestant, who endeavors to maintain his balance and light the candle.

Shoe Race (9)

Shoes of contestants are thrown into a barrel. The contestants draw up behind a given line. At a signal they rush to the barrel and endeavor to find their own shoes. They are allowed to throw any shoes not their own as they will. As soon as they find their own

they must report back with the shoes properly on to the judge. The one first doing so wins.

Sack Chase (10)

Equipment Needed: Two sacks. The players get into the sacks, which are tied under their arms, and take positions in opposite corners of the ring. They lie on the floor on their backs and wait for the command, "Go." Upon receiving the command, they jump to their feet and run around the ring, to the right, and keep going until one man overtakes the other. *Note.* This is the old sack race confined to a boxing ring.

Peanut Relay (11)

Equipment Needed: A flat stick like a shingle or a spoon and a peanut for each competing team. Competitors must race across finish line and back, balancing the peanut on the stick or spoon. The stick and peanut are transferred to the next man in the column behind the starting line and the race continues.

Bat Kicking Stunt (12)

Equipment Needed: Slippery floor, baseball bat. The player, toeing a certain mark, holds the bat in his left hand, placing the end on the floor close to his left instep.

The object of the game is to kick the bat for distance, marking distance on the floor. The bat must be kicked by the right toe from in back, the right foot swinging past the left heel on the outside. If the contestant is standing on a slippery floor watch for a fall, as the player will kick his left foot from under him.

Pillow Fight on Pole (13)

A pole at least ten feet long is placed across wooden horses, four feet above the floor or ground. The opponents straddle pole armed with pillows and endeavor to dislodge each other by hitting with pillows.

Pillow Fight

Hello, Mike (14)

Equipment Needed: Boxing gloves. Two blindfolded opponents lie upon floor face down with their heads toward each other and about a foot apart. They reach above their heads with their left arms, grasping hands. Their right hands are covered with boxing gloves.

Number one says, "Hello, Mike, are you there?" Number two is required to answer, "I am," trying to deceive his opponent as to location. Number one takes one swing with his gloved hand at the point where the voice comes from. Number two then asks the question and the game continues.

Cracker Eating Contest (15)

Five crackers are given each contestant. At the signal to start he begins eating same. The one who consumes the five and is able to whistle first wins the event. (Melon Eating.)

Weight Guessing (16)

The object of the game is to make a guess at the weight of some man in the audience or crowd. Post five or six men to paddle the man being weighed when on the weigher's back. The weigher, picking his victim, feels of his legs and his arms and then says he can guess within three pounds of the man's weight. If the man permits, the weigher steps in front of the victim, taking his two arms over his shoulders, and bending forward, lifts the man, raising his feet off the ground, saying, "You weigh about," the word "about" being the cue for the five or six men posted to start paddling his stern.

The Ghost (17)

The individual who puts on the stunt calls for eight or more volunteers. He arranges them in a straight line, elbow to elbow, as close together as possible, and takes his place at the left of the line. Addressing the one who stands at his right he says, "Last night I saw a ghost at my house." The one addressed replies, "Is that so? What did he do?" The leader then sticks his right arm straight out in front of him. The one next to the leader then turns and addresses the individual at his right, making the same statement regarding a ghost at his house last night, and when the individual replies asking what he did, the informer sticks out his right arm, as did the leader. The question, answer and performance are passed down the line. This results in every man in the line having his right arm sticking straight out before him. With the arm in this position the leader again makes the statement that he saw a ghost in his house last night. The one at his right asks what he did, as before. The leader replies that he did this—and sticks out his left arm. This is repeated until all have both left and right arms projecting in front. Starting at the head of the line the leader then makes the statement and illustrates what the ghost did by assuming a squatting position, leaving both arms out in front. When the whole line has assumed this squatting position after the regular question is asked, the leader starts again, this time sticking one leg out in front, clear off the floor. After the question has been passed down the line,

the individuals are all balancing themselves on one leg, with the other leg and both arms projecting before. The leader by giving a slight shove overbalances the group and a pile results.

Lifting Seven Men (18)

This is a frame-up and should be used particularly to take care of fresh individuals in the camp. Some fellow boastfully says he can lift seven men in the hearing of the fresh one. He, of course, argues the point immediately. A strong man then performs the feat as follows: He lies down on his back. Six other men who are in on the trick sit with their legs across his body. The fresh one is then invited to be the seventh man to be lifted and is asked to lie face down lengthwise across the knees of the six others, his head and shoulders being near the head and shoulders of the strong man who assists in holding him in this position while the six others administer the paddling.

Pie Eating Contest (19)

Equipment needed: *Four nice juicy blueberry pies.* Eight men. The pies are cut in half, being placed in a tin plate, and placed on the table or floor. If on the floor the men kneel. The contestants' hands must be tied behind them. The object of the game is to see which man can eat his pie the quickest. He must do this without the aid of his hands, and must not be allowed to push pie out of pan. Upon licking the plate clean, he picks up the plate in his teeth. The first man doing this wins. *Note.* This is a great stunt with which to finish up a stunt night.

Can and Glove Boxing (20)

Opponents are armed with a can containing pebbles in their right hand and a boxing glove on their left. Both are blindfolded. They rattle continuously, endeavoring to locate each other by sound in order to land blow with glove hand.

Barrel Boxing (21)

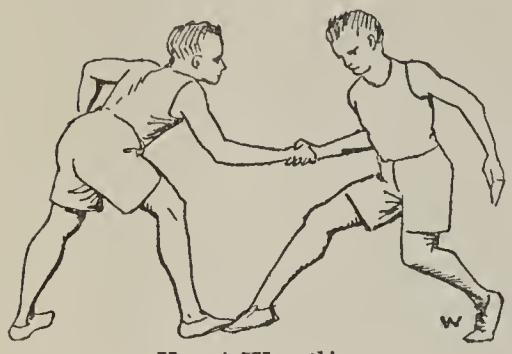
Secure two large barrels, extracting projecting nails. Place opponents inside of same and have them box. *Note.* A potato sack can be used as a substitute for barrels in this event.

Hot Hand (22)

One man who is "it" bends foward, placing his hands on his knees The other players gather behind him and swat him with the palms of their hands. If he guesses the one who hits him that one must take his place.

DUAL STRENGTH TEST

Large groups can be divided into equal smaller groups and compete in the following events to good advantage. These events can also be used successfully as events for stunt night programs. Have the winner challenge anyone in the audience.



Hand Wrestling

Hand Wrestling (1)

The wrestlers stand with right foot advanced clasping right hands. The object is to make opponent move a foot from his position on the ground. This constitutes a throw.

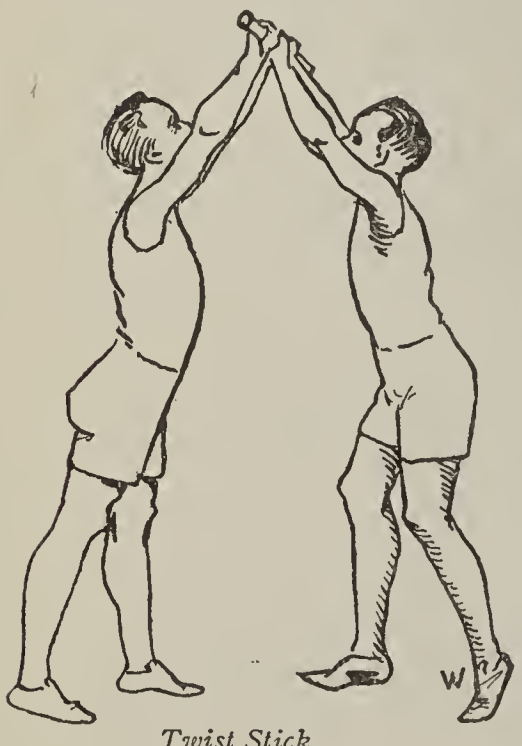
Toe Wrestling (2)

The wrestlers are seated on the ground facing each other's knees. A stick is placed between the arms and knees while in this position. The object is to get the toes under those of the opponent and roll him over backwards. If either wrestler breaks his handclasp about the knees it constitutes a victory for his opponent.

Toe Wrestling

Indian Wrestling (3)

The wrestlers lie upon backs side by side with arms locked, legs extended in opposite directions. The right legs are raised and lowered twice. At the third raising they lock legs together and each endeavors to bring his opponent's leg down to the ground, thereby turning him upon his face.



Twist Stick

Twist Stick (4)

Two grasp a gun or broomhandle high above their heads. At the word to go the stick must be brought down between them, thereby twisting within the hands of one of the players. This can be done without stick by having opponents grasp hands above head, fingers between fingers.

Pull Stick (5)

Two sit upon the floor, toes against toes. They grasp a broomhandle between them, and at the signal each tries to pull the other up off the floor. Can be used without stick by opponents grasping hands, using the hook grasp.

Rooster Fight (6)

A circle four feet in diameter is drawn upon the floor or ground. Two players standing on one leg, both hands grasping the other foot behind their backs, endeavor to make the other step outside of the ring or break his clasp upon the upheld foot, by shouldering each other.

Rooster Fight

Knocking Off Hat (7)

Two, by sparring together endeavor to knock off the opponent's hat.

Dog Fight (8)

Two place themselves on hands and knees facing each other about three feet apart. Their leather belts are linked together. The linked belts are thrown over their heads. The players must keep heads up and back. At the word "Go," the players pull against each other until one of them is pulled across the line three feet back from where the players started, or until his head is pulled forward thereby releasing the strap.

Elbow Wrestling (9)

A table or some flat surface is necessary for this event. The opponents stand on opposite sides of the table placing the right elbows together on same. They clasp hands and endeavor to push the back of the hand of the opponent down to the table without lifting the elbow.

Harlequin Wrestle (10)

Each contestant stands on one leg, one leg and arm swinging free. They grasp right hands and each tries to make the other lower his upraised foot to the ground, or touch the floor with his free hand. Losing balance or touching floor with free hand or foot constitutes a fall. A fall may be produced only with the engaged hand.

La Savate (11)

Two contestants fold arms, hop on one foot until within touching distance with their free feet, when by feinting or tapping with the free foot each tries to cause the opponent to lose his balance and touch floor with free foot. (From the French boxing contests where the feet are used.)

Hand Slap Wrestle

Hand Slap Wrestle (12)

Same formation as above. Players stand about two feet apart with each player's feet in a line, toe and heel touching, left arm placed behind back, right arm swinging free in front. The player, by striking, feinting, or evading tries to cause his opponent to lose his balance. This constitutes a fall. The fallen player's place is taken by another player from his own team. This continues until all of one team have been thrown. The team wins which has the last boy standing.

APPENDIX

HISTORICAL STATEMENT

EDGAR M. ROBINSON

Senior Secretary of Boys' Work Division, International Committee of Young Men's Christian Associations

One of the outstanding characteristics in the organization of the Young Men's Christian Association has been the emphasis placed upon the local autonomy and independence of each individual Association.

The supervising committees have been created by the local Associations in convention assembled, and continued to operate under the instruction of such conventions. This complete liberty and responsibility of each local unit has had much to do with the development of the almost endless varieties of Association effort. No set pattern or program has been handed down from a central authority, but the fundamental ideals of the Association have been preserved, notwithstanding this. While the Association movement as a whole has lacked uniformity, it has not lacked unity.

To introduce a standardized, graded program into an organization with such history and traditions would be quite impossible, were it not for the almost unanimous consciousness of need and desire for something of this kind. Local Associations which were acutely conscious of how "peculiar" their fields were, and how much they differed from other Association fields, also became increasingly conscious of the number of problems that were identical in every field. While Associations justly resent any movement which would tend to deprive them of their individuality, they eagerly welcome any plan which is the result of "pooled" experience and which helps them in *their common problems.*

Many years ago it was found, through physical department activities, that boys took pride in their records of achievement and would work diligently to measure up to some set standard or requirement in order to receive the recognition. Gradually

this idea of giving boys credits, or points, or counts, was introduced into other activities beside the physical. Long before the year 1908 such credits were being given by various Associations in varying ways. One of the most elaborate of these local plans, however, was printed in *Association Boys* in 1908 under the title of "The Tuxis System," which was devised by Harvey L. Smith, then Boys' Work Secretary in the Bedford Branch, Brooklyn. Part of this plan had been operated by Mr. Smith in his previous secretaryships in New Haven and Providence. Valuable contributions in this direction were also made by John L. Alexander, as Boys' Work Secretary in Philadelphia, and later as Superintendent of the Secondary Division of the International Sunday School Association, M. D. Crackel, Boys' Work Secretary of Cleveland, and a number of others.

The idea of charting a boy with reference to the activities in which he was undeveloped or over-developed, probably originated with Walter M. Wood, General Secretary of Philadelphia, while the charting plan seems to have been first adequately developed by Taylor Statten, National Boys' Work Secretary of Canada. So many men at different times have contributed different items, it is impossible to record the credit that is due to each one.

So rapidly did this general idea spread and develop, the National Council of Canada began to correlate the efforts and developed a system of tests in 1912 under the name of the "Canadian Standard Efficiency Tests."

Shortly after this the Association of Boys' Work Secretaries of North America appointed a special committee to develop a somewhat similar program for general use in the United States, and some valuable work was done. In May, 1916, the International Committee was requested to become responsible for the development of this program, the National Council of Canada having graciously granted the Committee the use of any of its copyrighted material in connection with the Canadian tests.

A committee of fifteen was called together, representing the Religious Education Association, the Federal Council of Churches of Christ in America, the International Sunday School Association, the Sunday School Council of Evangelical Denominations, and the International Committee of Young Men's

Christian Associations, to discover if an American Standard Program for boys could be jointly developed and promoted. The American Standard Program as then developed was offered to this committee by the International Committee of Young Men's Christian Associations, with the hope that each of the other bodies would make similar contribution to a joint program.

Several meetings of this Commission were held, but a number of difficulties presented themselves which prevented unanimous and joint action, so on September 28, 1917, the following resolution was passed:

> Whereas the Commission on Religious Education of the Religious Education Association is engaged upon an investigation similar to that undertaken by the Commission on the Standard Program of Boys' Work, therefore, be it resolved that the Commission suspend operation for the present. Second, that the Chairman of the Commission be authorized to convene the Commission at any convenient time, upon the request of the representatives of any constituent body. Third, that pending definite action by the Commission, each constituent body will be at liberty to conduct independent investigation and experimentation in its direction.

Following this resolution, the International Committee again resumed its work with the program and printed a second proof edition in which the form of the material was changed while the content remained the same.

A thorough revision was then undertaken by members of the International Boys' Work Staff and by scores of State and Local Boys' Work Secretaries and others. Through correspondence and by conferences, gradually there was built up an elaborate program, which was submitted to a general conference of Association men in Atlantic City in December, 1918, and to a conference of boys' work men in Chicago the same month. Still further revisions resulted. Dr. Sidney A. Weston and Professor E. P. St. John gave much valuable time and many helpful suggestions, especially in connection with parts of the program for Comrades, in adapting the material for use with the Sunday school program for boys of this age. Other recognized leaders in the field of religious education had already been consulted, and had given helpful and constructive criticism. The program as it

stands today is the product of many men of recognized ability and experience.

With the full consciousness that any program of this character must be tested out in the laboratory of experience, and that as large volumes of experience are pooled changes, additions, and modifications of the program may seem wise from time to time, nevertheless this program is recommended in its present form by men who have given careful thought to the matter and who have had years of experience in practical boys' work, and by men of recognized ability in the field of religious education, as the best all-round graded program of religious education yet devised for boys, and it is hoped that it will be found sufficiently rigid and yet sufficiently elastic to constitute the minimum program which will be used and recommended by the Young Men's Christian Associations and other organizations which desire it throughout the country.

INSIGNIA AND REGISTRATION

Classes of Insignia

A very simple insignia has been devised for the entire Program. It may or may not be used, just as the individual group may determine. Every effort has been made to make it inexpensive, yet effective and attractive.

Regulation Pins and Watch Fobs

The regulation pins and watch fobs may be obtained in a variety of types and sizes; for the official design see illustration. (Price list furnished upon application.)

PIONEERS COMRADES LEADERS

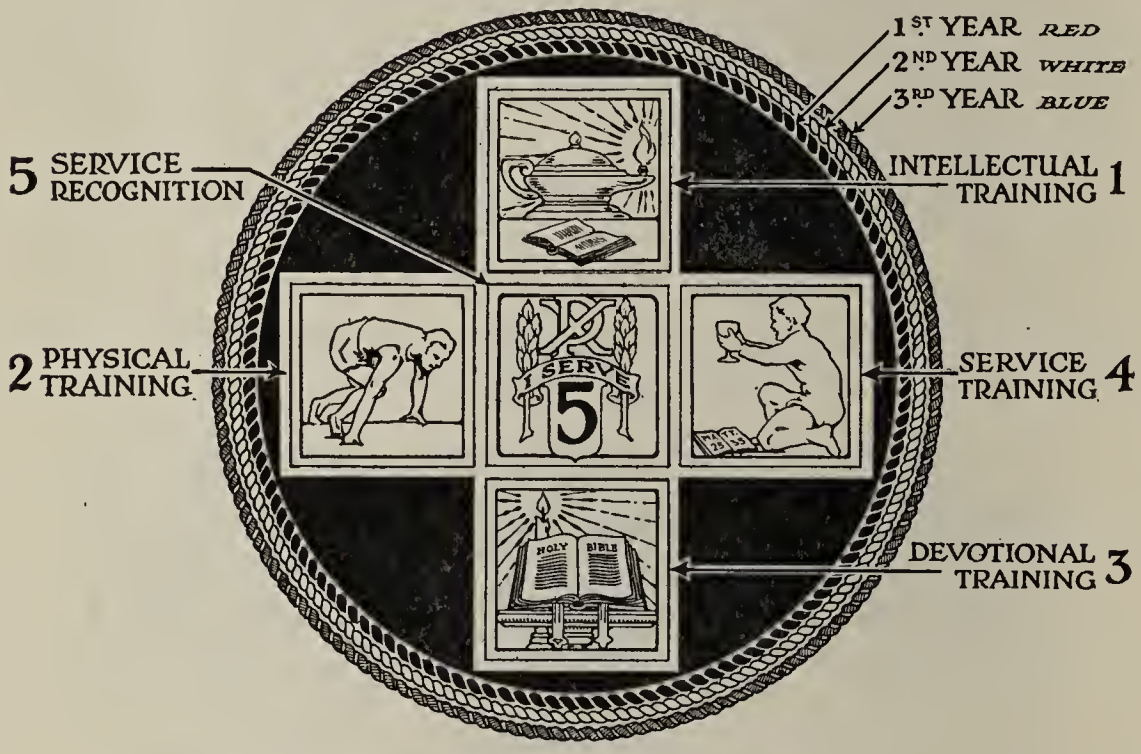
These pins have been designed to show simply that the wearer is actually identified with the all-round Program of development and to show which particular group of the Program he is taking. The *Leader's* pin for both Pioneer and Comrade groups is the same.

The Sweater Emblem

A more elaborate emblem has been devised for the sweater. (See the complete emblem in the illustration.)

The Swiss cross is chosen as the symbol of fourfold development. The circle suggests complete living. Each arm of the cross is taken to represent one phase of development: top (No. 1), the Intellectual Training Program; left (No. 2), the Physical Training Program; lower (No. 3), the Devotional Training Program; right (No. 4), the Service Training Program. An

emblem suggestive of each side of the program has been devised and may be earned by the boy in any one of three colors, red, white, or blue. If the boy averages fifty per cent or below in any one of the standards at his initial charting interview, he must wear a *red* emblem, but if he averages above fifty per cent and under seventy-five per cent, he must wear a *white* emblem. If,



on the other hand, his average in any one of the four standards is above seventy-five per cent as shown by the interview, he is entitled to wear the *blue* emblem; thus his built-up insignia shows his standing.

Both PIONEERS and COMRADES have three one-year programs of activity. The silk cords (see illustration) about the basic circle of the insignia are to represent these years of work. A boy taking the first year's work in either group will add the first or red cord; when he passes into the second year's work, he will add the second, or white cord; when he passes into the third year's work, he will add the third or blue cord. Likewise if he *enters* the group program when the group is using the second year's tests, he will wear on his insignia only the white cord instead of the red and white, or in the third year, only the blue cord, instead of the red, white, and blue.

The Service Recognition Insignia

The very soul of the Program is service, consequently the center of the insignia is reserved for the *Service Recognition* numerals. (For full explanation of the Service Recognition plan see Chapter VI, this manual.)

The Service Recognition emblems are made bearing heavy numerals. The numeral worn by any boy shows the total number of Service Recognitions that he has been awarded, without regard to the particular type of service rendered. This method is used to overcome the undesirability of *rewarding* in any way for service. As the boy develops the service side of his life to the maximum, he changes the numeral from 1 up to a possible 6. The *Leader* of a group should have on hand a supply of Service Recognition emblems of the various numerals so that the changes may be made quickly either by exchange or by supplying additional emblems.

Difference of Insignia for Pioneers and Comrades.

The only difference between the insignia for PIONEERS and COMRADES is that the basic circle used in PIONEER insignia is black in color, while the basic circle for the COMRADES is tan in color. Each boy should be encouraged to keep all pieces of insignia earned, dating each piece, but should wear only such as show the result of his latest interview and charting.

A Suggestive Group Insignia

It will be easily understood how in exactly the same way an accurate insignia for any group may be built up, showing the Intellectual, Physical, Devotional, and Service standing of the group as a whole. The *Service Recognition* numeral of the group would then, of course, be the total of the individual Service Recognition numerals of all members of the group. A new group insignia should be made each year, following the annual charting of all members in order to bring it strictly up to date. Special group insignia of a large size can be secured from Association Press, 347 Madison Avenue, New York City. Price upon application. Such an all-round development pennant would be very valuable for conferences, camp, conventions, and the like, and

its proper display would greatly stimulate the use of the Program by other groups.

Other Insignia

In addition to the regular official insignia a group may adopt for local use any additional uniform or insignia—such as colored caps, sweaters, and so forth—that it cares to.

Local Organization and Administration

It should be constantly borne in mind that this entire plan of graded material is essentially a *program* and not a new organization for boys. Consequently, the organization and administrative features have been kept as simple as possible; every stumbling block and obstacle to local initiative and control has been eliminated; on the other hand, if national recognition is to be given, the national awards and insignia must be reasonably protected. The following very simple plan has been devised for present use. What the future may hold no one can at this time determine.

Creating a Local Cooperative Committee

For the time being, pending possible revisions or new cooperative relationships, a local Cooperative Committee shall be composed of at least three men, officially designated from and adequately representing the evangelical churches and interests (including the Young Men's Christian Association).

(Where there is no local Y. M. C. A., a representative of the County or State Committee should be made a member of this local committee.)

This committee shall apply for official registration at the nearest of the regional offices named below. The fee for registering each local Cooperative Committee is one dollar.

The following are the present regional offices of the International Committee:

Eastern. International Boys' Division, 347 Madison Avenue, New York, N. Y.

Central. International Boys' Division, Room 1500, 19 South La Salle Street, Chicago, Ill.

WESTERN. International Boys' Division, 229 Association Building, Denver, Colo.

SOUTHERN. International Boys' Division, 1610 Candler Building, Atlanta, Ga.

Registering Leaders

Leaders can only be registered through a local *Cooperative Committee.*

The local *Cooperative Committee* shall forward to the nearest regional office of the International Committee a properly filled out *Leader's* Registration Blank, and the sum of one dollar for each *Leader* it registers, to cover costs of registration.

The registration of *Leaders* shall be for the calendar year only, a re-registration of all *Leaders* being required each year.

Securing Insignia

National insignia may be secured from Association Press, 347 Madison Avenue, New York City, or from any one of its official repositories (cash with order—price list and information upon application) upon the presentation of suitable identification as a registered *Leader.* (Printed order blanks and identification slips will be supplied each local Cooperative Committee upon registration.)

Cooperation with State Committees

The regional offices shall file with each state office early record of all registrations of local Cooperative Committees and *Leaders* within their several states, and such other facts and information as may be valuable to any given state in adequately promoting the best interests of the Program.

How to Organize Locally

Create a local Cooperative Committee. Get in touch personally or by correspondence with your local or nearest supervisory office of the Y. M. C. A. (see list of state offices below) and request that a representative meet with your newly created committee to talk over the whole matter of organization and promotion. This representative will come prepared to explain fully the Program and its objectives.

Next, select the *Leaders* for the various groups that are to use the Program and register them at the nearest regional office upon regular *Leader's* Registration Blanks that will be supplied upon request.

Next, take steps, under the direction of the Y. M. C. A. representative or other qualified party, to train adequately your registered *Leaders*. Not only the content but the objects and purposes of the Program should be well understood by each *Leader* before he attempts to use it with a group of boys. This training will, of course, include a thorough reading of both the boys' handbook and the Leader's manual to be used. If you have questions or wish further information that you cannot get locally, write either your state or regional office. Bulletins and printed matter, bearing on the Program, also order blanks for supplies, samples of various records, etc., will be mailed each *Leader* upon registration.

Too great stress cannot be laid upon the absolute necessity of adequately training leadership. Under all circumstances avoid beginning the Program with any group for which you cannot supply a reasonably trained *Leader*. Avoid widespread promotion for which you are not prepared. The Program is not a new collection of entertaining stunts but a program of character building, dealing with the fundamentals of boy life. Plan carefully and thoroughly. Hasty and superficial organization means ultimate failure. Seek counsel. Study the manuals. Then proceed, determined to succeed.

State Committees of Young Men's Christian Associations

(Address correspondence to Boys' Division)

Alabama	526 North 20th Street, Birmingham
Arizona	711 Caples Bldg., El Paso, Texas
Arkansas	603 A. O. U. W. Bldg., Little Rock
California	325 First Nat'l Bank Bldg., San Francisco
Colorado	25 East 16th Avenue, Denver
Connecticut	177 Church Street, New Haven
Delaware	20 West Franklin Street, Baltimore, Md.
District of Col.	20 West Franklin Street, Baltimore, Md.
Florida	Y. M. C. A., Jacksonville

Georgia	1602 Candler Bldg., Atlanta
Idaho	195 Sixth Street, Portland, Ore.
Illinois	19 South La Salle Street, Chicago
Indiana	615 Majestic Bldg., Indianapolis
Iowa	807 S. and L. Bldg., Des Moines
Kansas	613 New England Bldg., Topeka
Kentucky	221 West Broadway, Louisville
Louisiana	509 Maison-Blanche Annex, New Orleans
Maine	Savings Bank Bldg., Waterville
Maryland	20 West Franklin Street, Baltimore
Massachusetts	167 Tremont Street, Boston
Michigan	Adams Avenue and Witherell Street, Detroit
Minnesota	30 South Ninth Street, Minneapolis
Mississippi	Daniels Bldg., Jackson
Missouri	114 North Seventh Street, St. Louis
Montana	27 Babcock Theater Bldg., Billings
Nebraska	951 Omaha Nat'l Bank Bldg., Omaha
New Hampshire	39 North Main Street, Concord
New Jersey	Room 1006, 671 Broad Street, Newark
New Mexico	711 Caples Bldg., El Paso, Texas
New York	2 West 45th Street, New York
North Carolina	350 South Tryon Street, Charlotte
North Dakota	Roberts Street and First Avenue, Fargo
Ohio	36 South Third Street, Columbus
Oklahoma	Patterson Bldg., Oklahoma City
Oregon	195 Sixth Street, Portland
Pennsylvania	408 Calder Bldg., Harrisburg
Rhode Island	167 Tremont Street, Boston, Mass.
South Carolina	122 Sumter Street, Columbia
South Dakota	305 Boyce-Greeley Block, Sioux Falls
Tennessee	226 Seventh Avenue, North, Nashville
Texas	611 Sumter Bldg., Dallas
Western Texas	711 Caples Bldg., El Paso
Vermont	171 College Street, Burlington
Virginia	Chamber of Commerce Bldg., Richmond
Washington	Fourth Avenue and Madison Street, Seattle
West Virginia	1406 G Street, N. W., Washington, D. C.
Wisconsin	147 Fourth Street, Milwaukee
Hawaii	Y. M. C. A., Honolulu

LEADER'S REGISTRATION BLANK

Name_____ Age_____

City or Town_____

Home Address_____

Occupation_____

State briefly former boys' work experience: _____

_____

_____

What study or training for boys' work have you previously had?

_____

_____

Have you had specific training for this Program?_____

What?_____

By whom taught?_____

Have you carefully read the Handbook and Manual?_____

_____

To what local institution is the proposed group of boys attached?

Church_____

Y. M. C. A._____

Club _____

_____

Of what evangelical denomination are you a member?_____

Name of church?_____

Number of boys in proposed group?_____ Average age?_____

Is your group an old organization now proposing to use the Program?

_____

Is your group a new organization beginning an all-round program for the first time?_____

_____

(Signature of applicant)

(Certification by Local Committee, attached to Leader's Registration Blank.)

To the Regional Office, (Address)_____
International Committee
Young Men's Christian Association.

We hereby request your office to issue Registered *Leader's* Certificate to Mr._____, who, in our judgment has the capacity and training necessary to successfully organize and administer this all-round program of character-building with a group of boys.

If this application is accepted, we, a regularly organized and registered local Cooperative Committee, agree to give Mr._____ _____'s group our best support and counsel in the development and expansion of the program to the end that his boys may be led into a definite plan of all-round Christian living.

Signed by_____

For (Name of State)_____Committee No._____

Date_____

Received_____ By_____

Registered Certificate No._____issued_____(date)_____

Memoranda filed with (State) Office_____(date)_____

Information packet, sample forms, etc., mailed_____(date)_____

COOPERATIVE COMMITTEE REGISTRATION BLANK

To the Regional Office, (Address of regional office)
International Committee
Young Men's Christian Association.

Gentlemen:

We, the undersigned, representing the various evangelical churches and interests of request that we be registered as an official local Cooperative Committee and authorized to:

1. Organize and promote the Program of Christian Citizenship Training in this locality.
2. Enlist and train prospective *Leaders* for groups.
3. Accept and submit for registration local *Leaders*.
4. Issue and supply, to such registered *Leaders*, national insignia, supplies, and service recognitions.
5. Issue and sell to the general public manuals, handbooks, and general promotion literature as it may develop.

It is clearly understood by us that this Program is especially designed for use of any party interested in bringing about the all-round Christian development of boys and will be administered by us with that end in view.

We agree to:

1. Annually submit a simple report of facts and figures on progress made (blank to be supplied).
2. Adapt local organization and control so as best to meet the boy needs of the whole community.
3. Select, inspire, and register likely *Leaders* of groups.
4. Promote or aid in formulating adequate plans to train sufficient leadership for the natural growth of the Program in the locality.

Signed:

Mr._____Representing_____
Mr._____Representing_____
Mr._____Representing_____

(Place additional names on back of this page.)

Correspondence and business matters with this Committee to be taken up with: _____Name
_____Address

Received_____(date)_____ By_____
Registration Certificate No._____issued_____(date)_____
Memoranda filed with____(State)____Office____(date)_____
Information packet, sample forms, order blanks, etc., mailed_____

STANDARD PHYSICAL EXAMINATION BLANK

Name _____

Address _____ School / Firm _____

Father's Name _____ Business Address _____ Phone _____

Family Health _____

PERSONAL HISTORY

Diseases and Accidents _____

General Health _____

Hours of Sleep _____ Tobacco _____

Physical Activities Practiced _____

_____

Remarks:

_____

Physical Director

Date	19	19	19	Eyes	
Age				Teeth	
Weight				Throat	
Height				Ears	
Inspection				Circulation	
Posture	Shoulders			Heart	
	Scapulæ			Blood Vessels	
	Thorax			Normal Pulse	After Ex. 20 Squats
	Spine			Respiration	
	Legs			Condition of Lungs	
	Feet			Type of Respiration	
Skin				Generative Organs	
Musculature				Phimosis	
				Varicocele	
				Hernia	

Remarks:

Examiner

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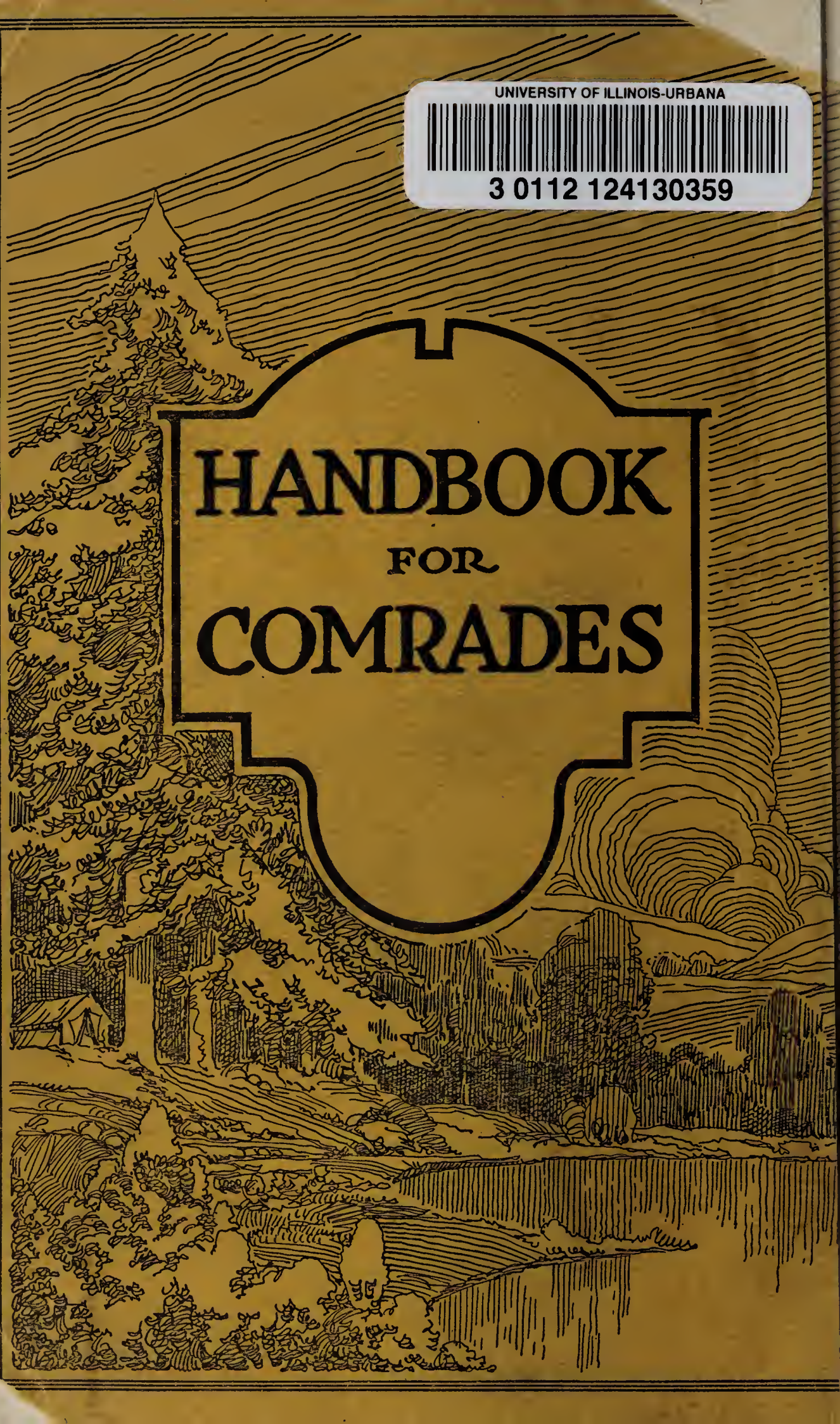

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